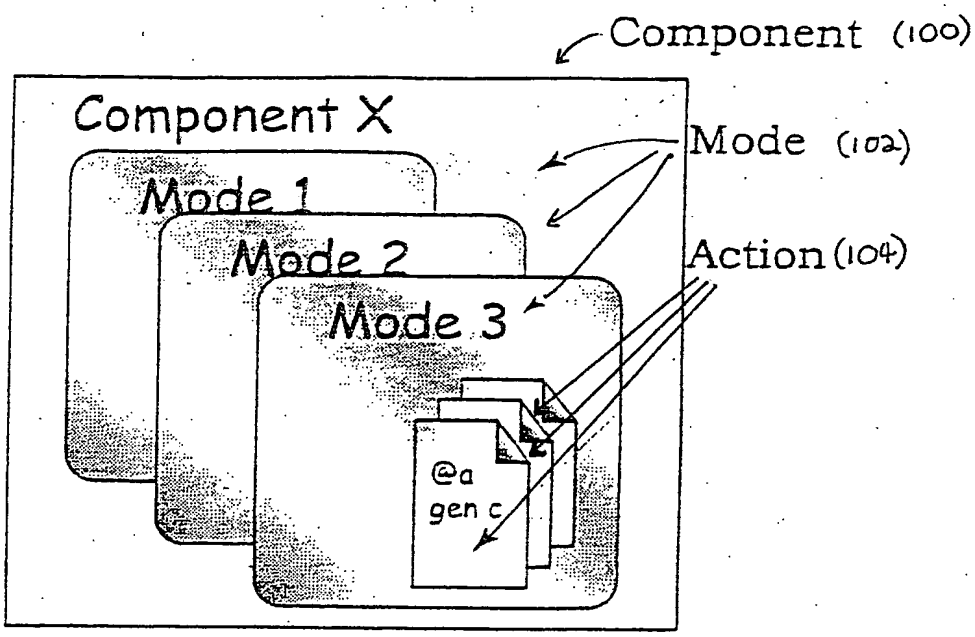

Component (100)
Component X
Mode (102)
Mode 1
Mode 2
Mode 3
Action (104)
@a
gen c

Figure 1

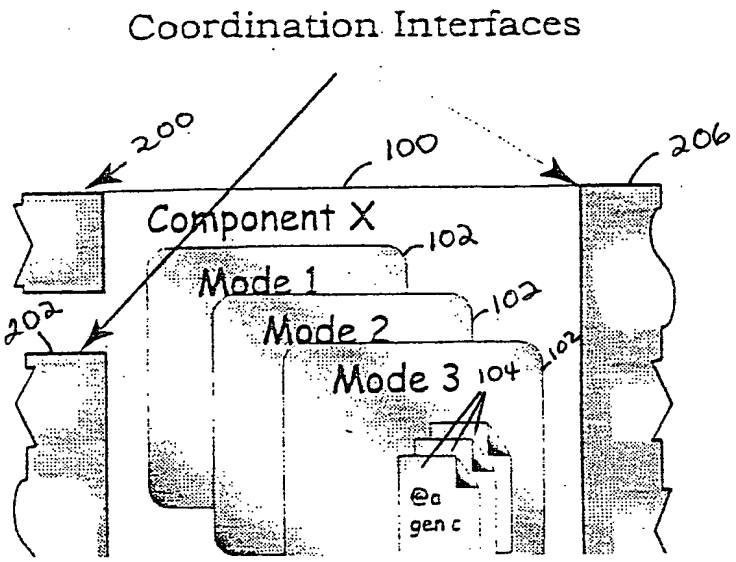

Coordination Interfaces
200
100
206
Component X
102
Mode 1
102
Mode 2
202
Mode 3
104
102
@a
gen c

Figure 2

T06T90 "954,58860

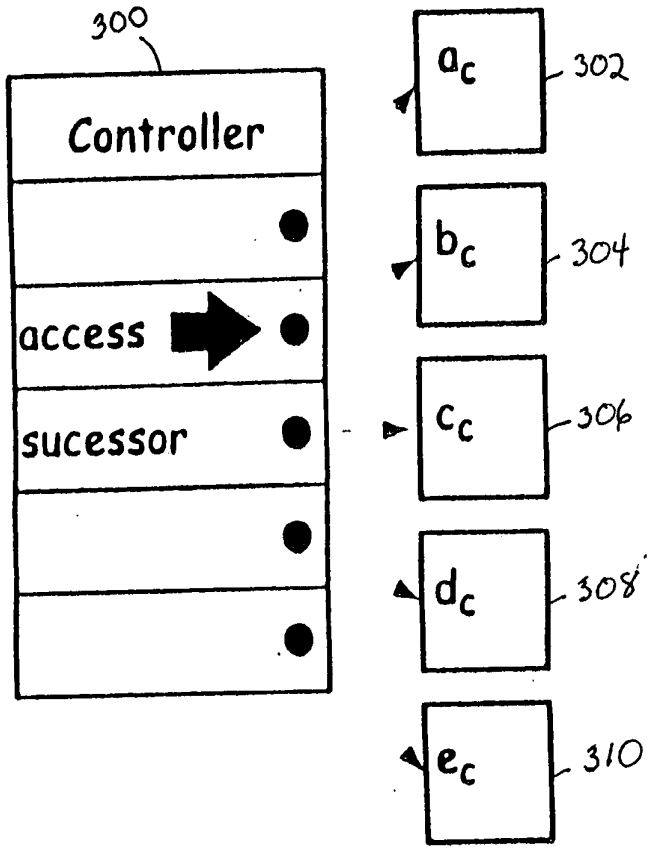


Figure 3A

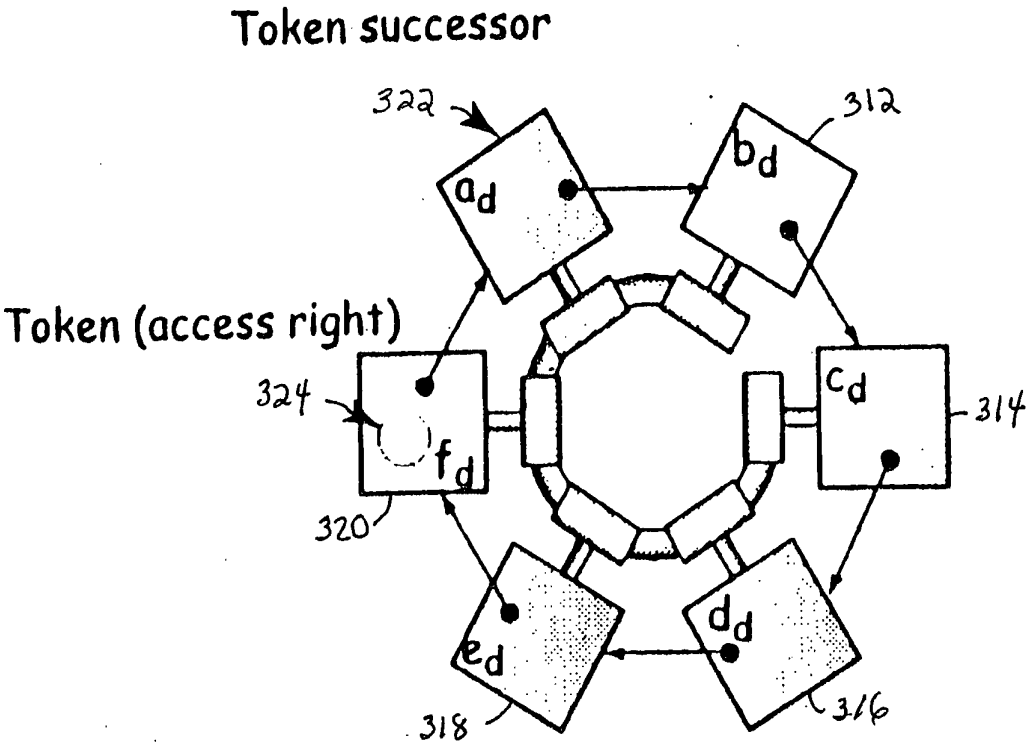


Figure 3B

T0GT90' 95h58860

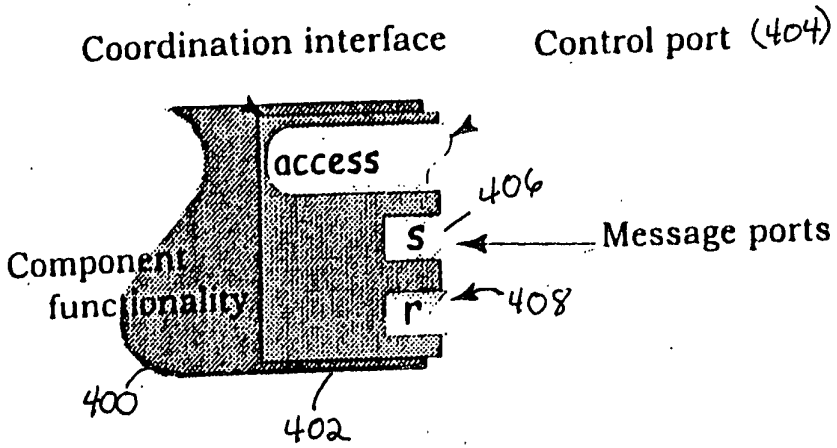


Figure 4A

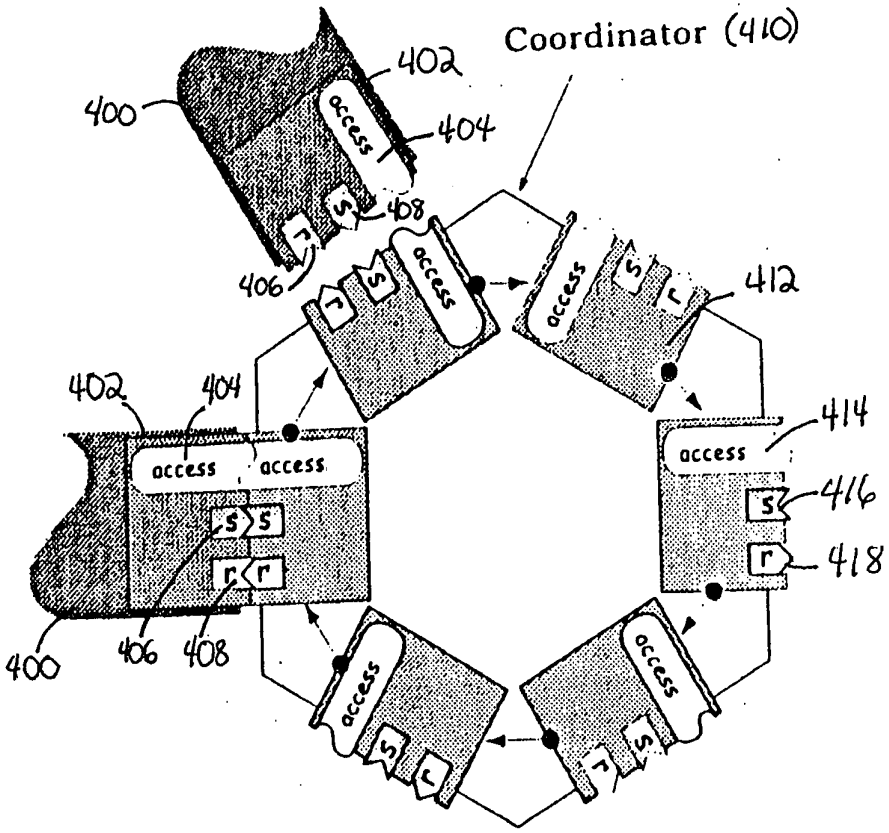


Figure 4B

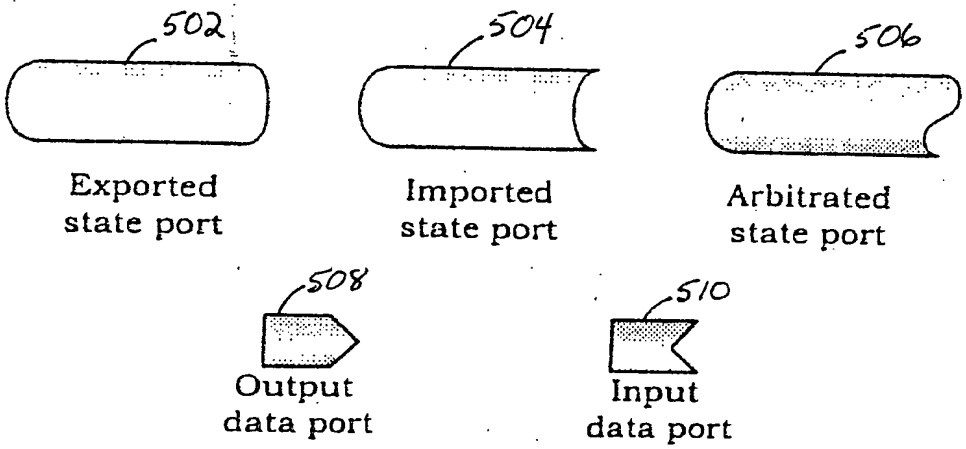

502
504
506
Exported state port
Imported state port
Arbitrated state port
508
510
Output data port
Input data port

Figure 5

I06I90 954S8860

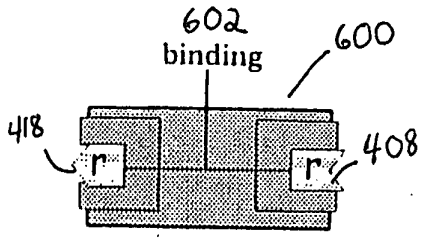


Figure 6A

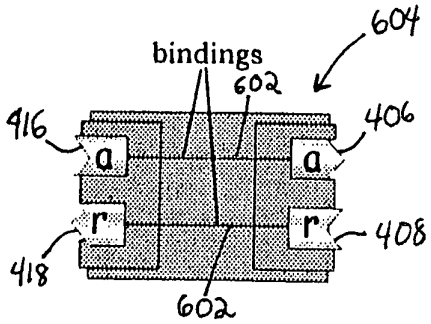


Figure 6B

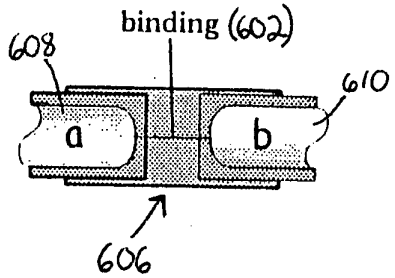


Figure 6C

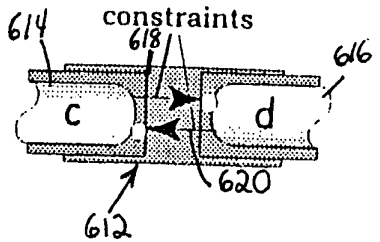


Figure 6D

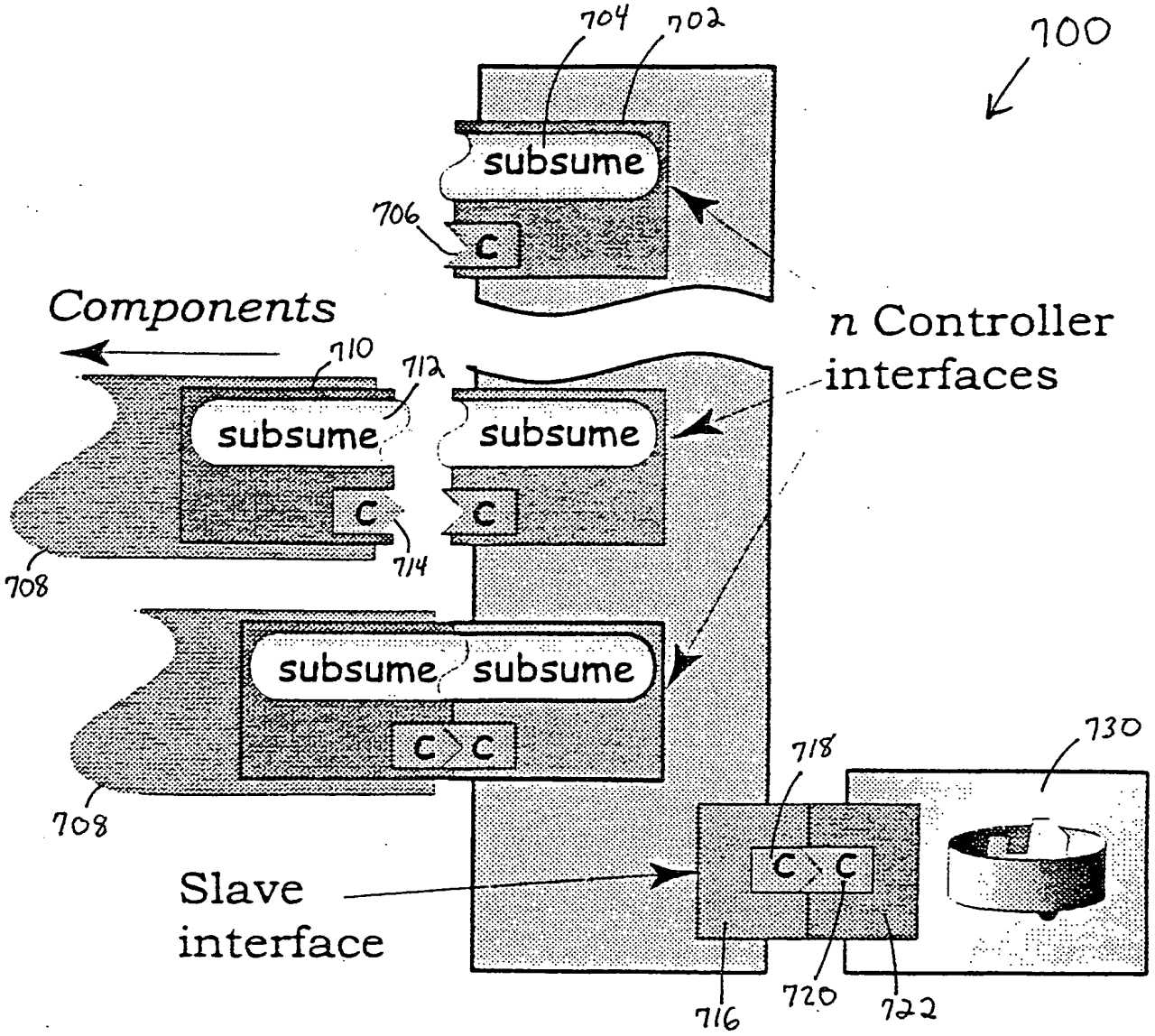

700
704
702
subsume
706
C
Components
n Controller interfaces
710
712
subsume
subsume
C
C
714
708
subsume
subsume
C
C
708
718
730
C
C
Slave interface
716
720
722

Figure 7

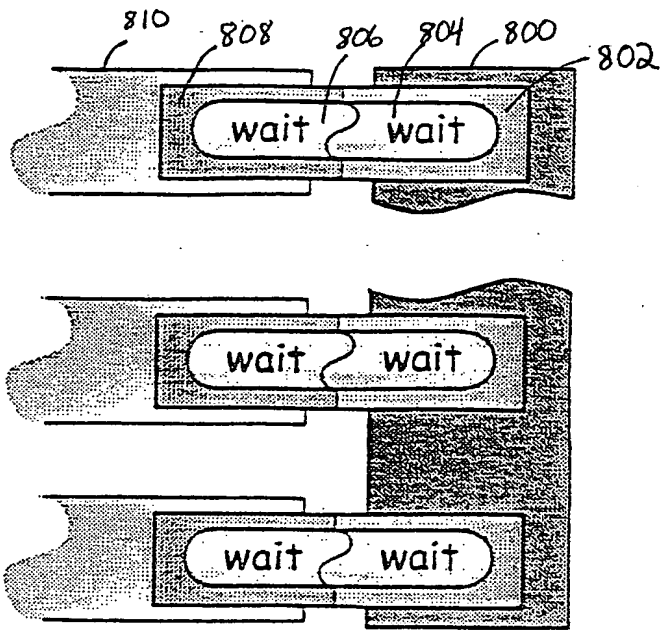


Figure 8

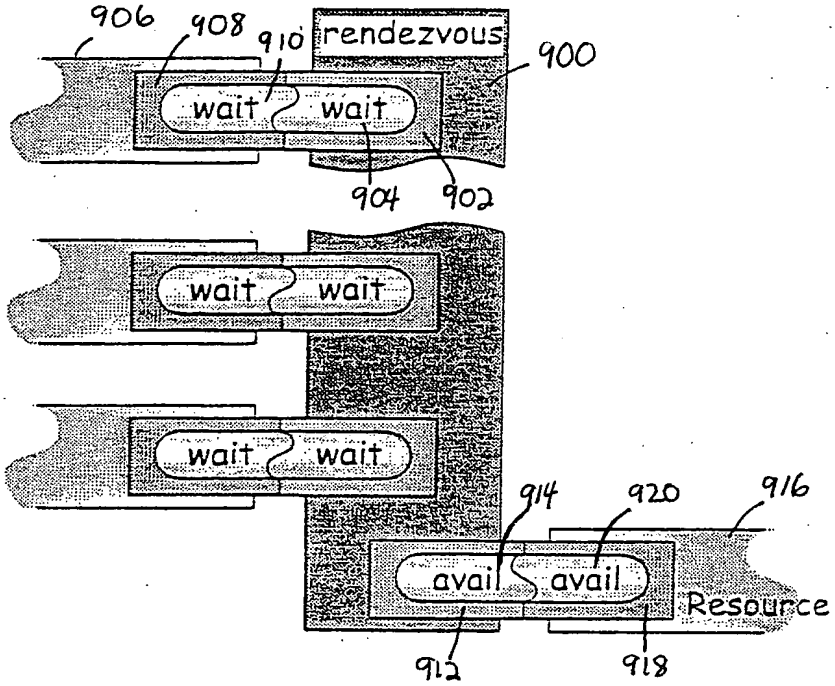

906
908
910
rendezvous
900
wait
wait
904
902
wait
wait
wait
wait
914
920
916
avail
avail
Resource
912
918

Figure 9

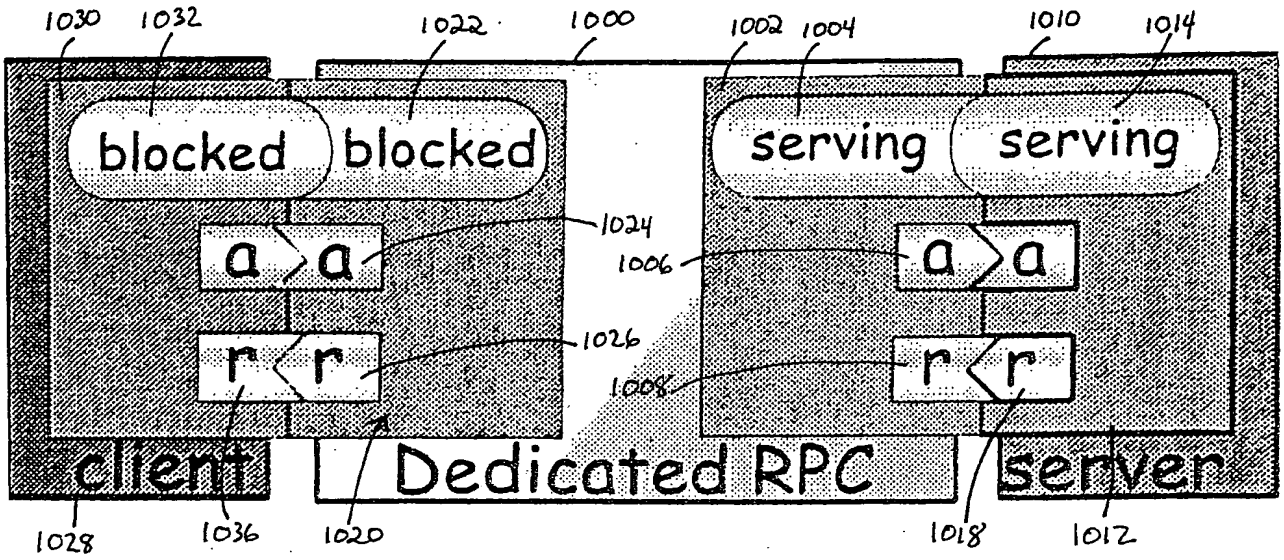

1030
1032
1022
1000
1002
1004
1010
1014
blocked
blocked
serving
serving
1024
a
a
1006
a
a
1026
r
r
1008
r
r
client
Dedicated RPC
server
1028
1036
1020
1018
1012

Figure 10

TO6T90"95t;S8860

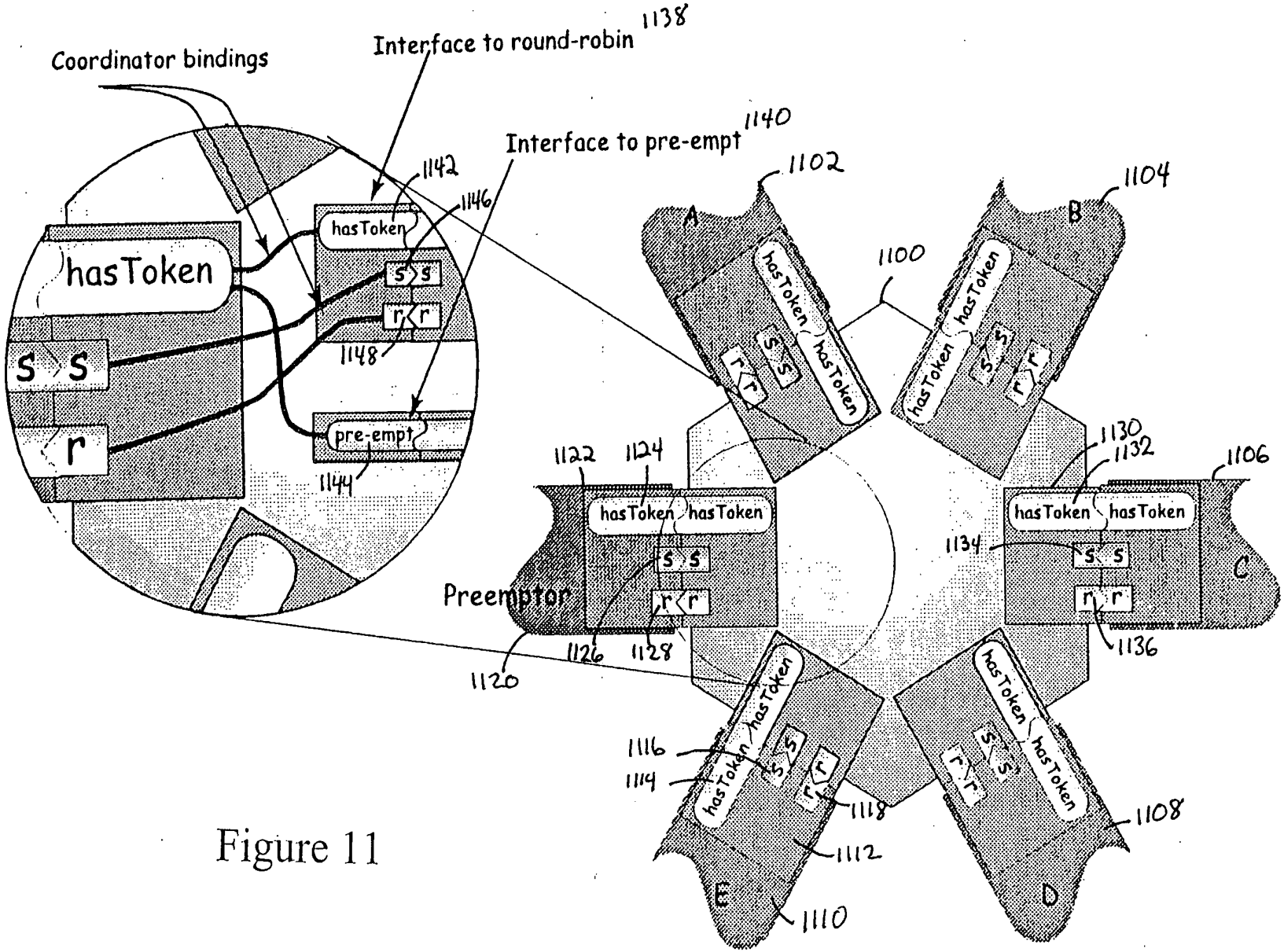


Figure 11

T06T90 95H58860

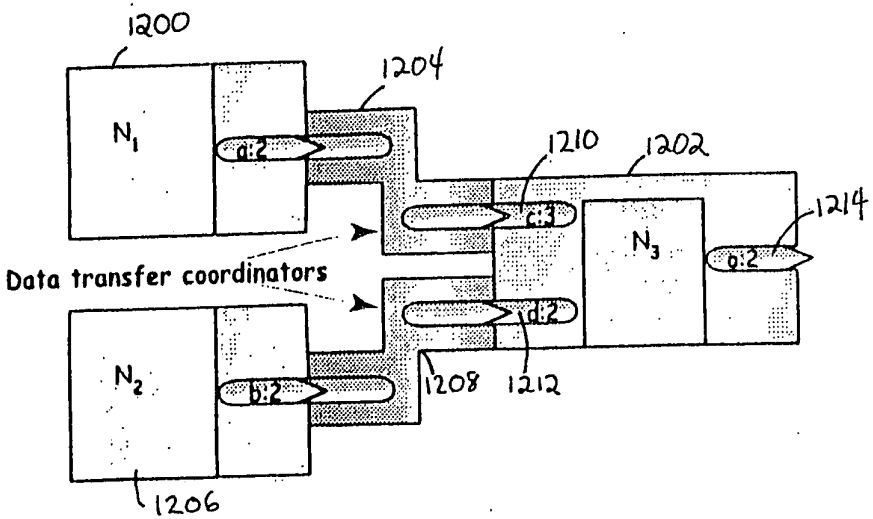


Figure 12A

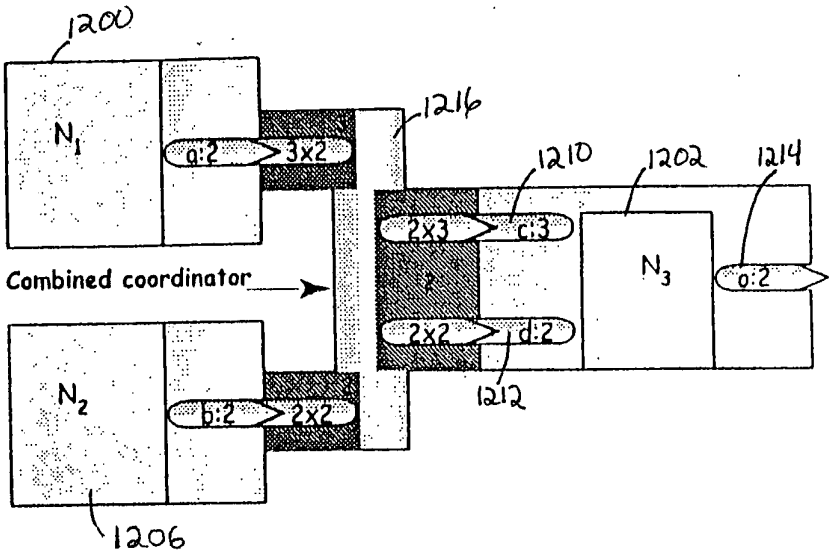


Figure 12B

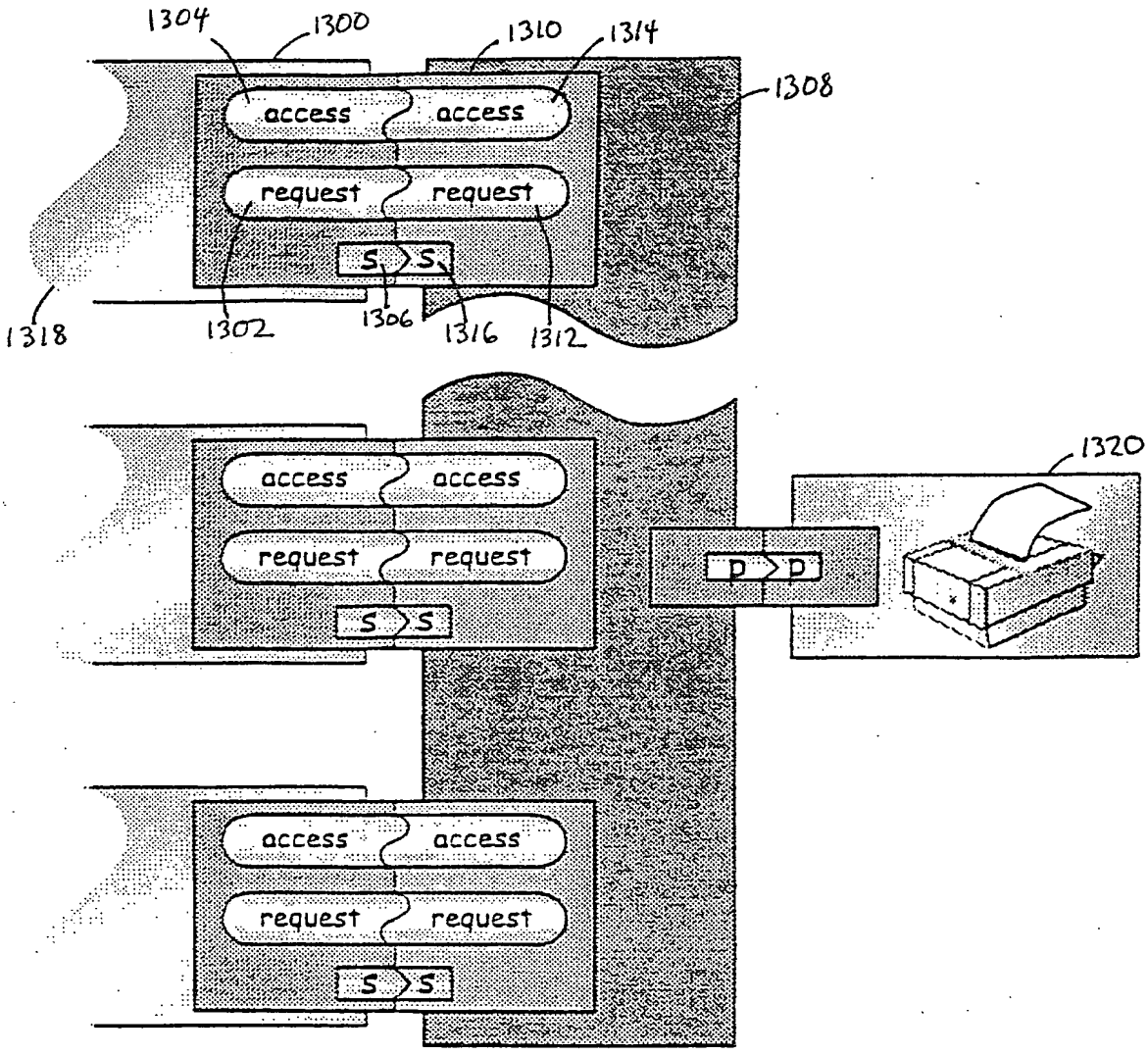

1304
1300
1310
1314
1308
access
access
request
request
S
S
1318
1302
1306
1316
1312
1320
P
P

Figure 13

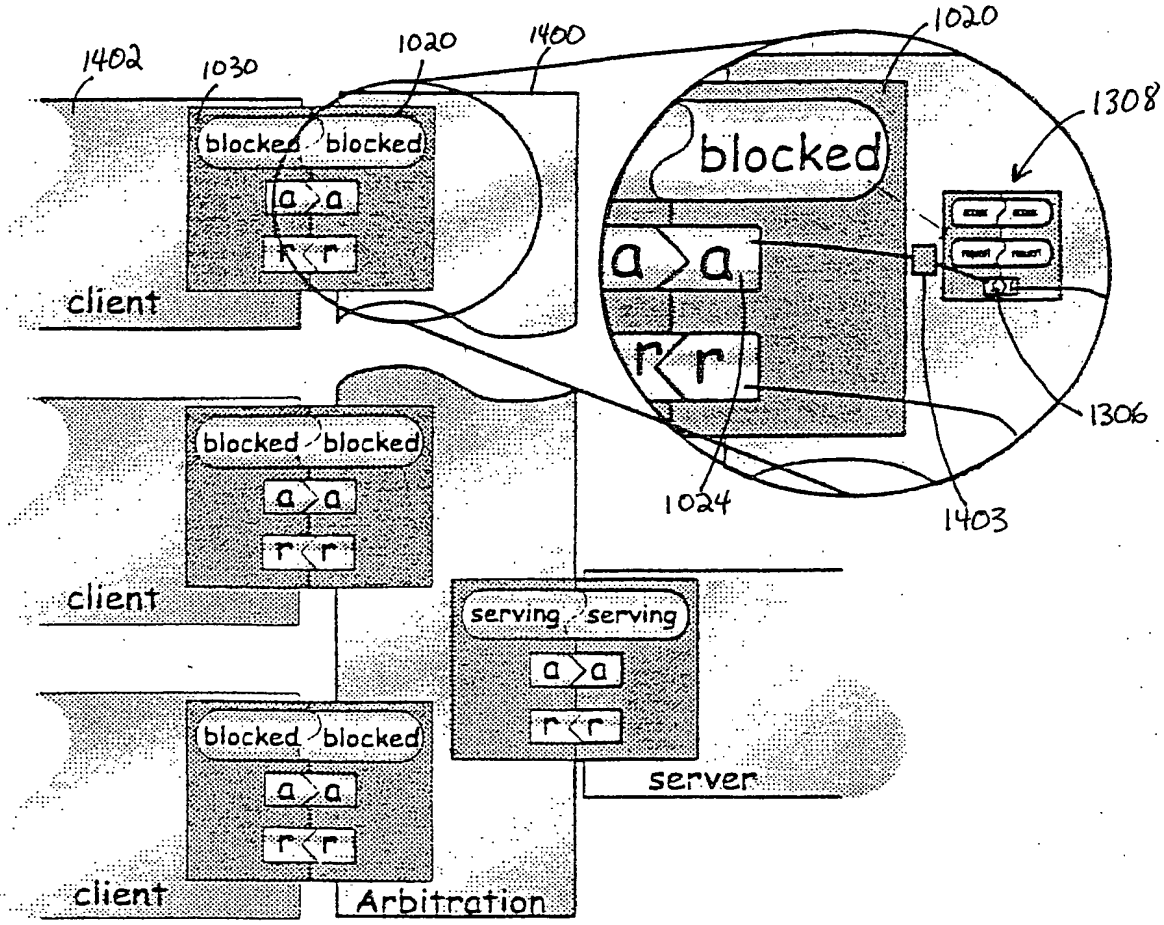

1402
1030
1020
1400
1020
1308
blocked
blocked
a
a
r
r
client
blocked
blocked
a
a
r
r
client
serving
serving
a
a
r
r
server
blocked
blocked
a
a
r
r
client
Arbitration
1306
1024
1403

Figure 14

T06T90"99h98860

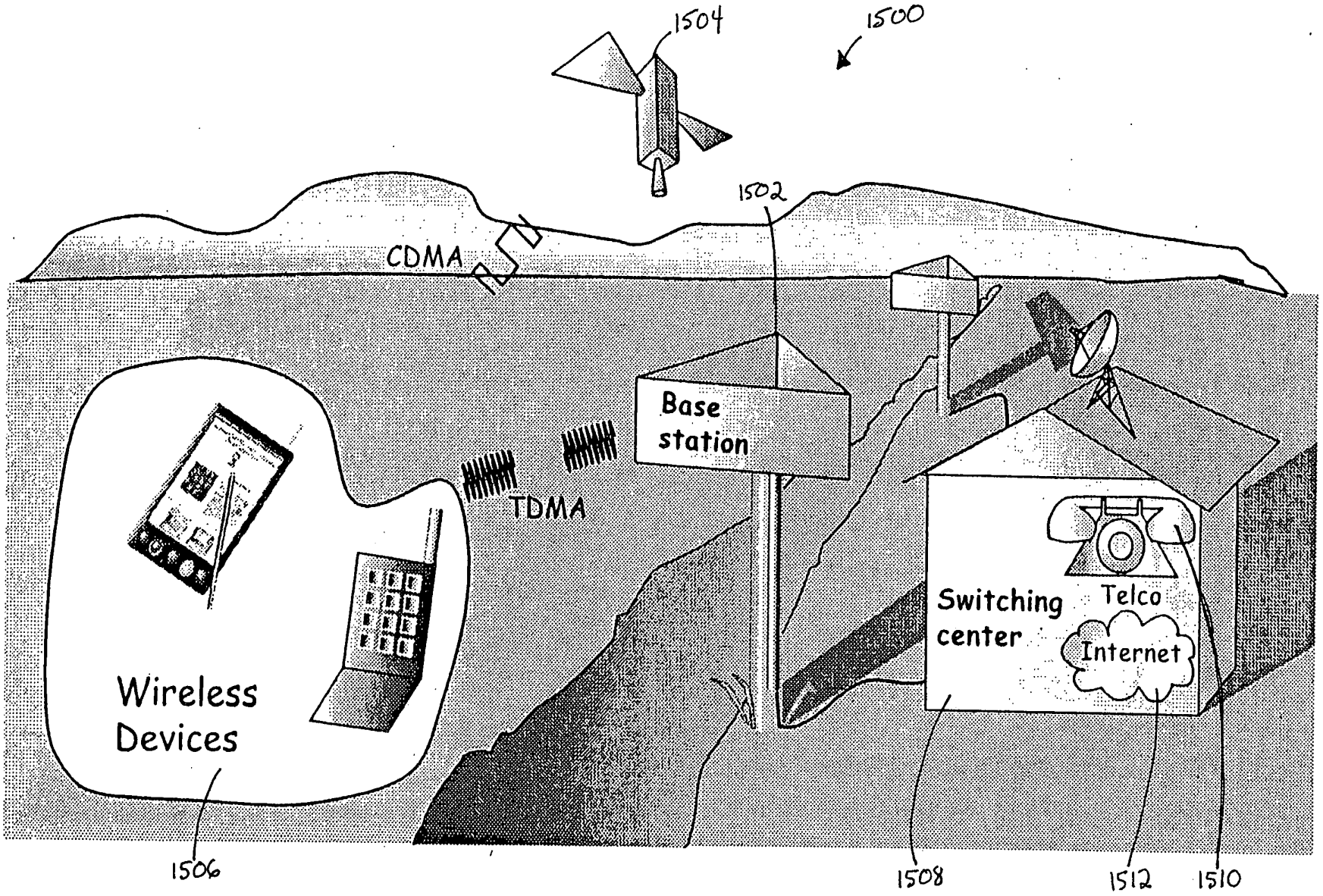


Figure 15

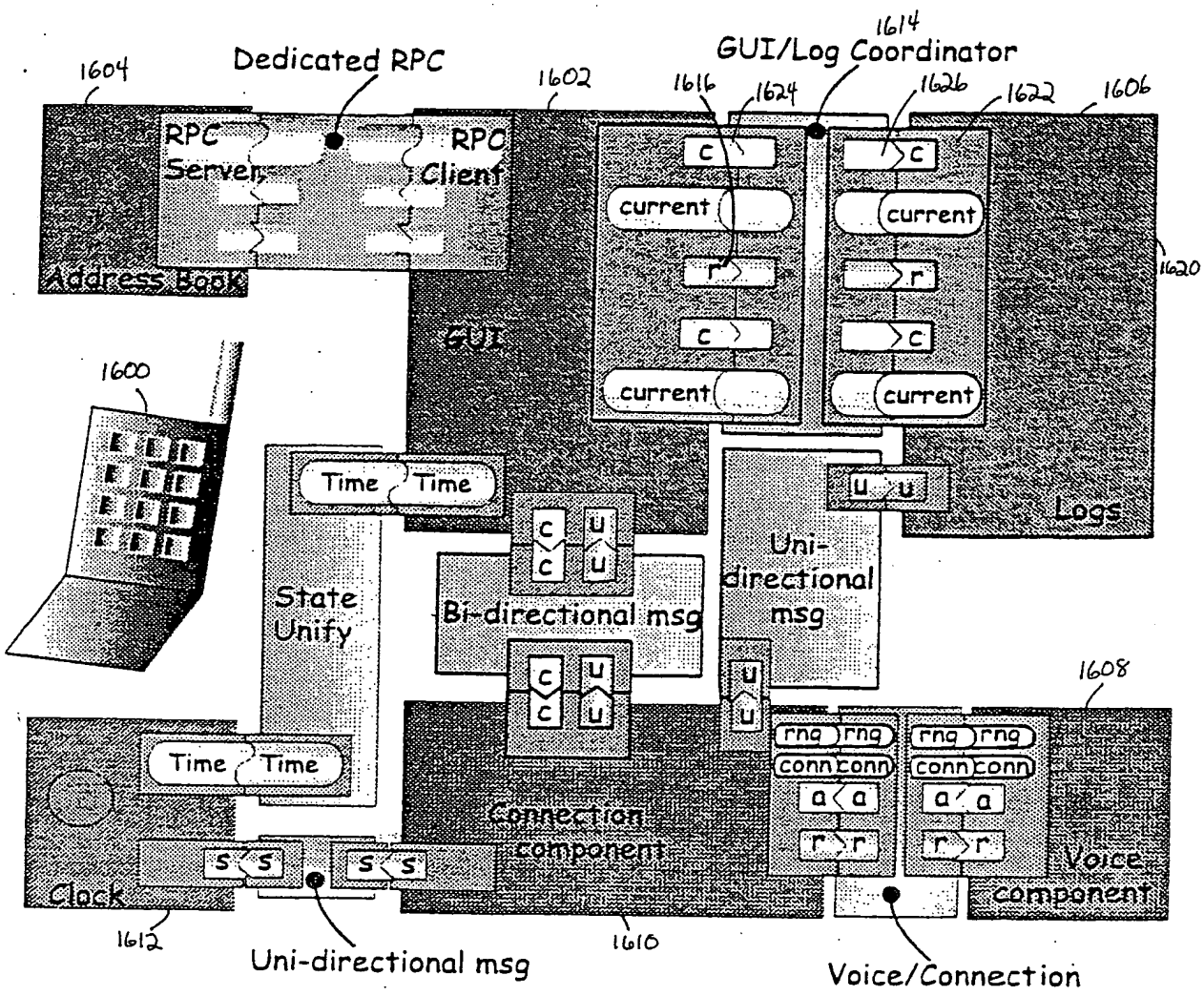

1604
Dedicated RPC
1614
GUI/Log Coordinator
1602
1616
1624
1626
1622
1606
RPC Server
RPC Client
Address Book
GUI
current
1620
1600
Time
State Unify
Bi-directional msg
Uni-directional msg
Logs
1608
rng
conn
Clock
Connection component
Voice component
1612
1610
Uni-directional msg
Voice/Connection

Figure 16

TOGT90 95+S8860

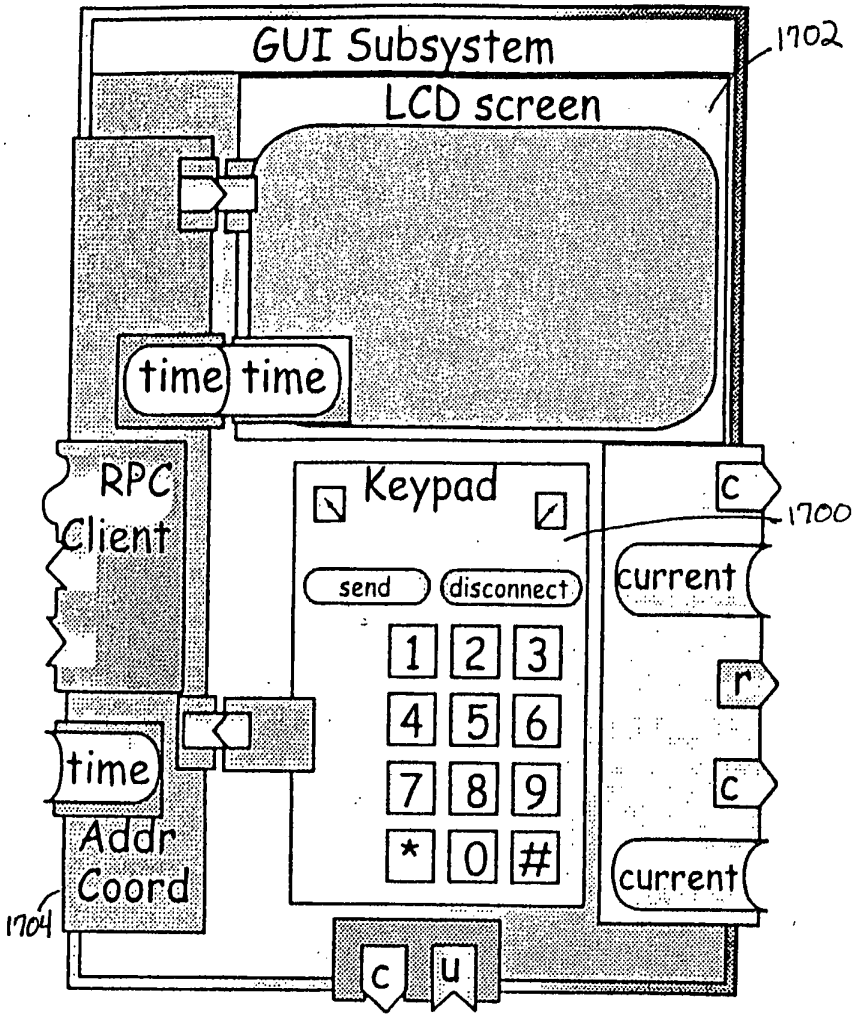


Figure 17A

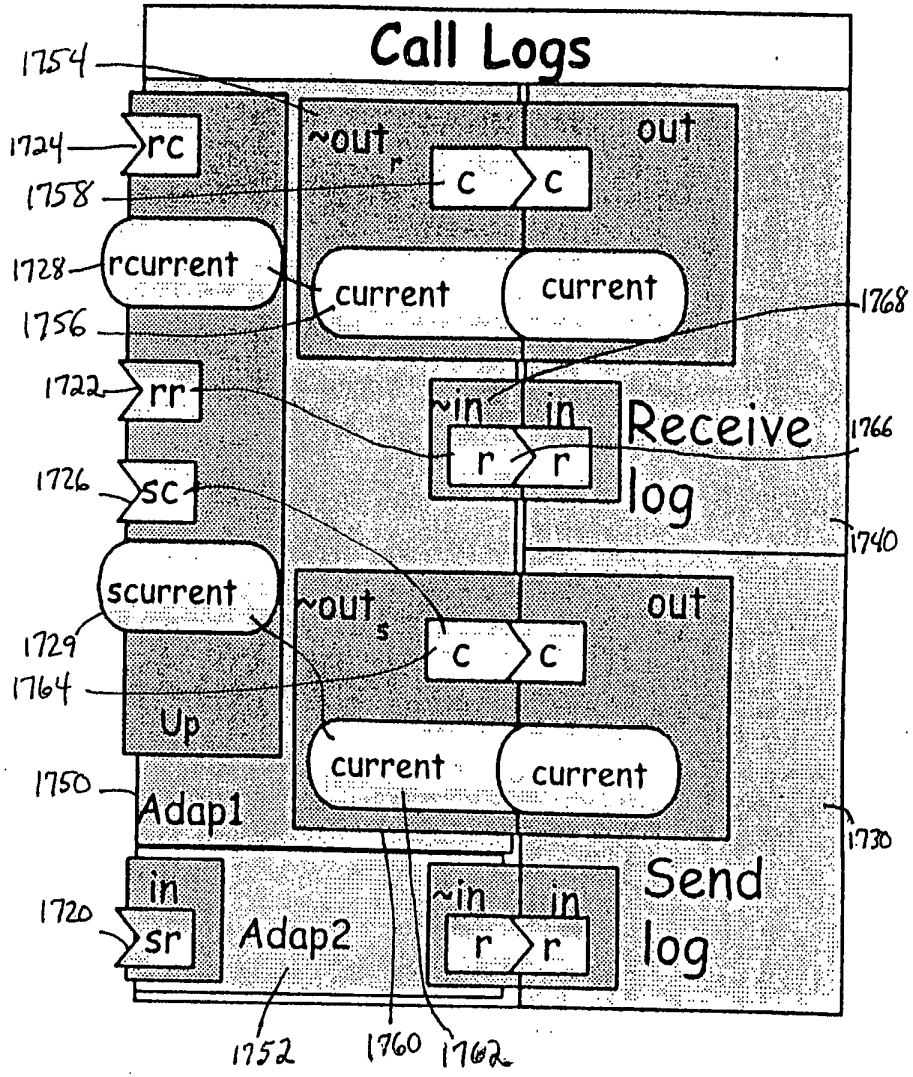


Figure 17B

T06T90' 95t598860

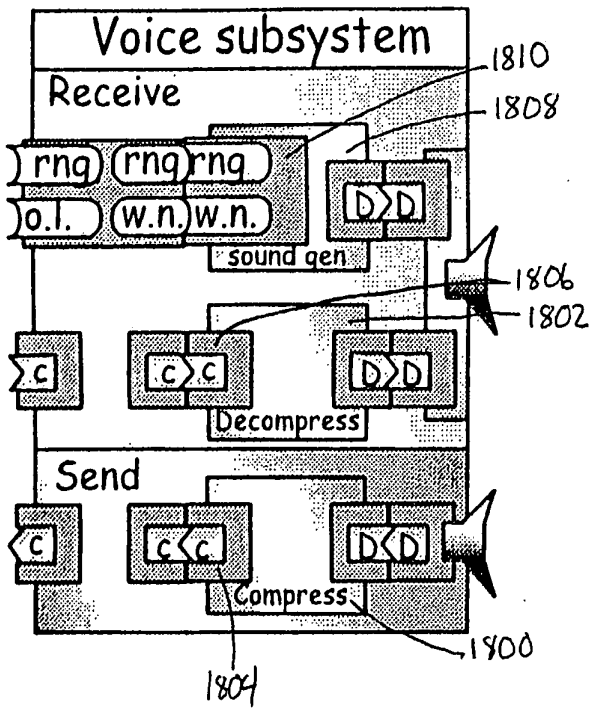


Figure 18A

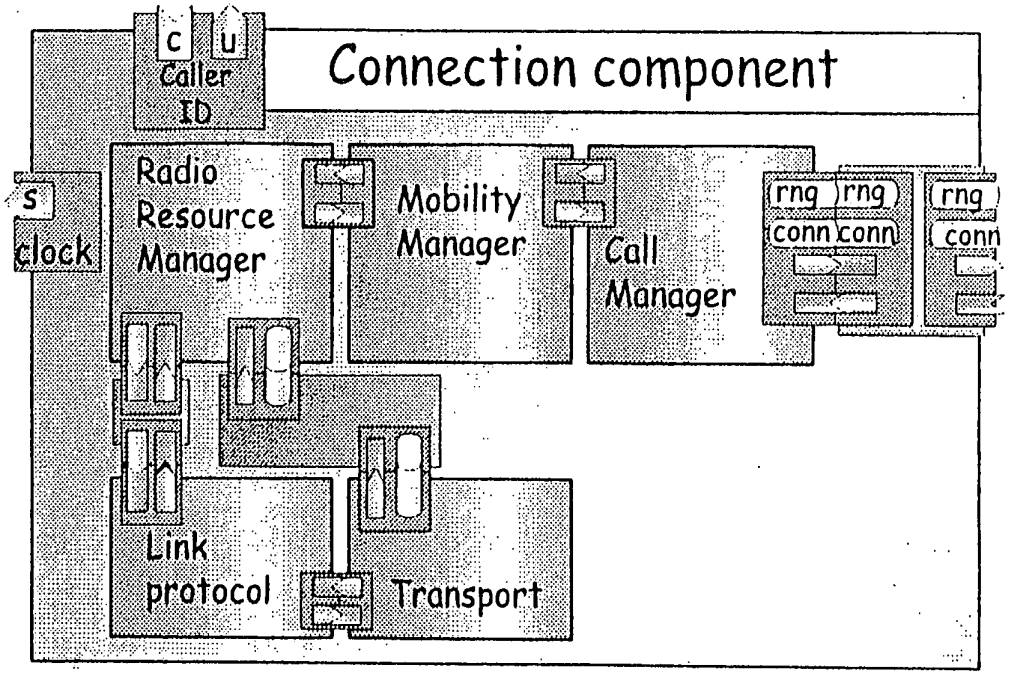


Figure 18B

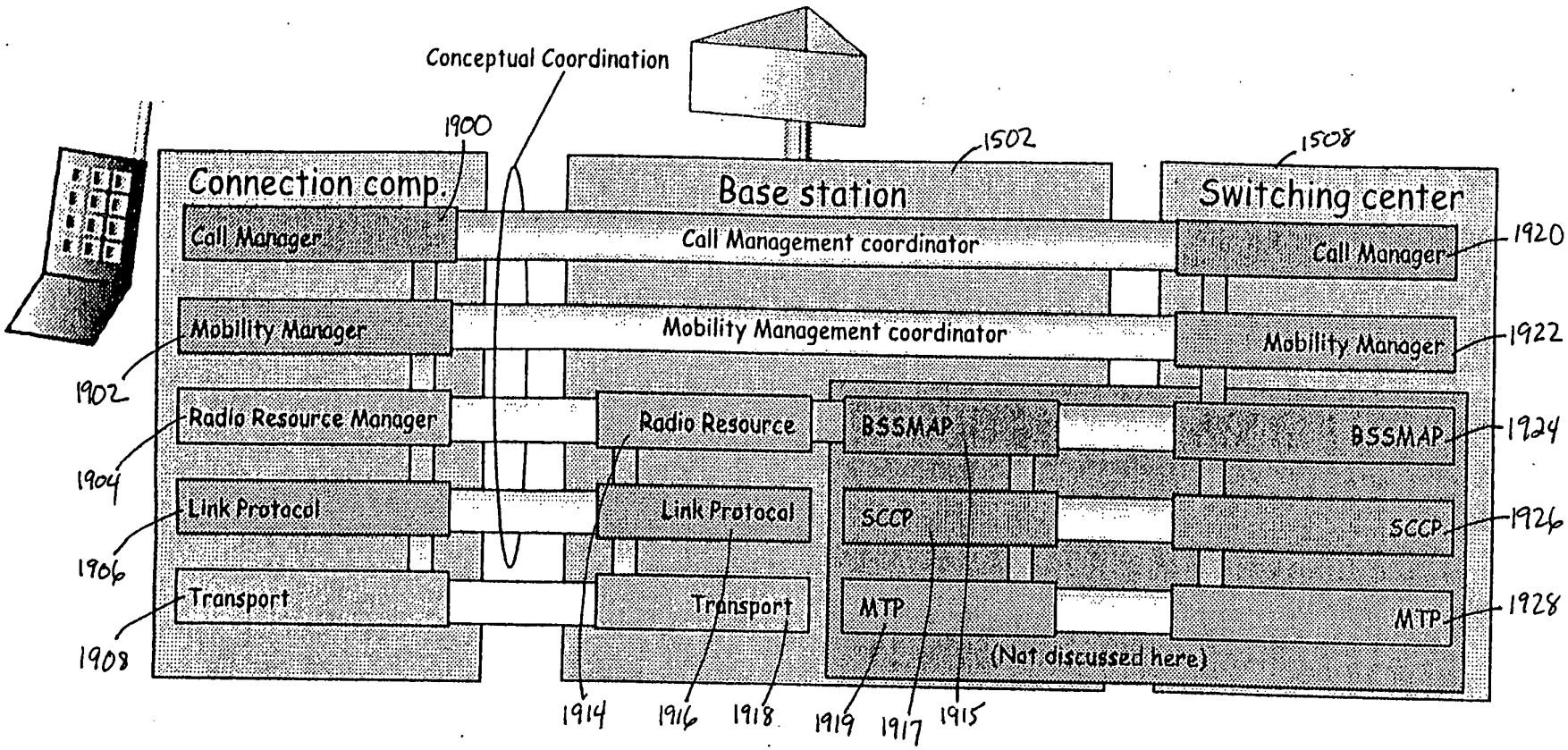

Conceptual Coordination
1900
Connection comp.
Base station
1502
Switching center
1508
Call Manager
Call Management coordinator
Call Manager
1920
Mobility Manager
Mobility Management coordinator
Mobility Manager
1922
1902
Radio Resource Manager
Radio Resource
BSSMAP
BSSMAP
1924
1904
Link Protocal
Link Protocal
SCCP
SCCP
1926
1906
Transport
Transport
MTP
MTP
1928
1908
(Not discussed here)
1914
1916
1918
1919
1917
1915

Figure 19

T06T90" 95+588660

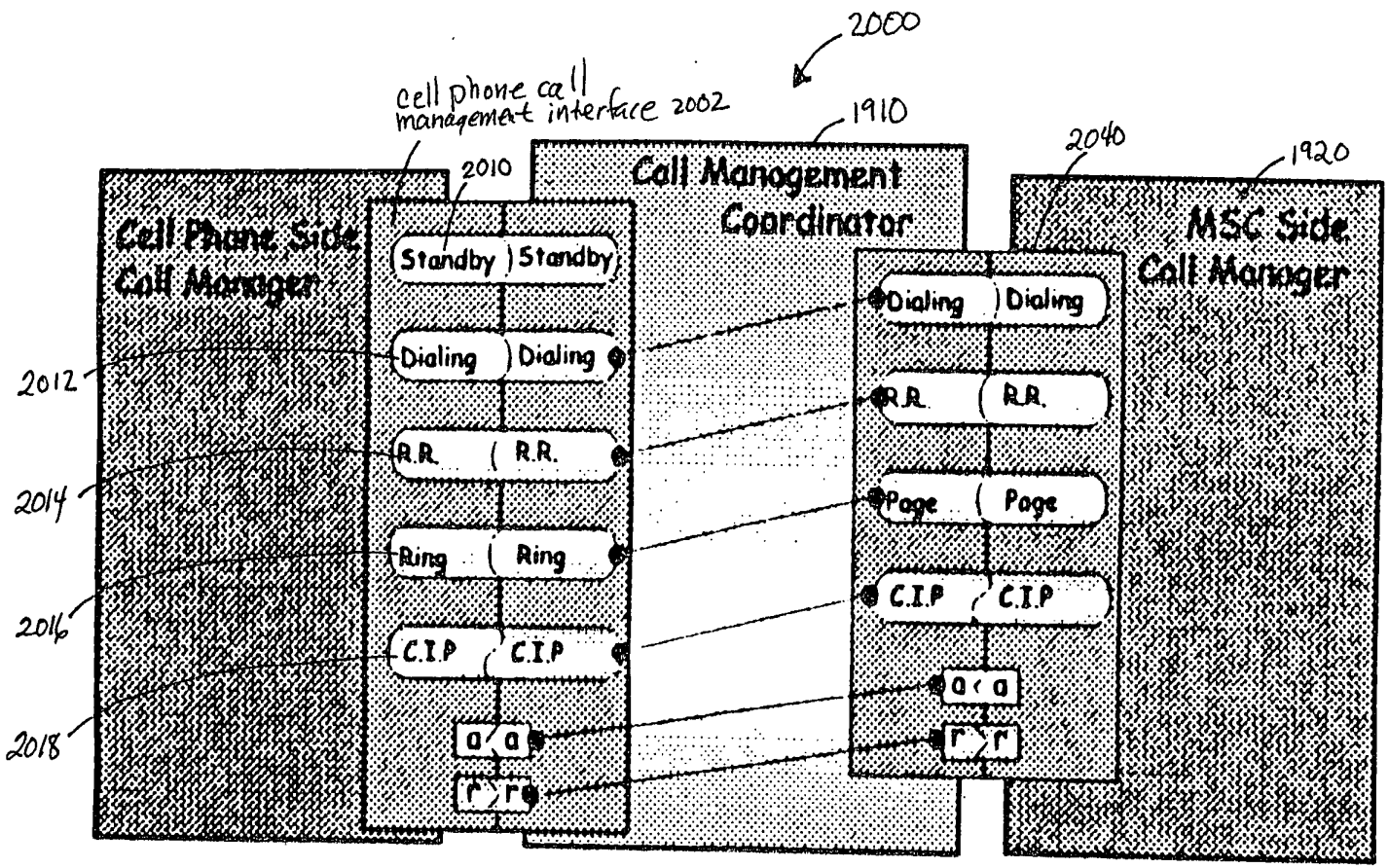


Figure 20

T06T90 "95+58860

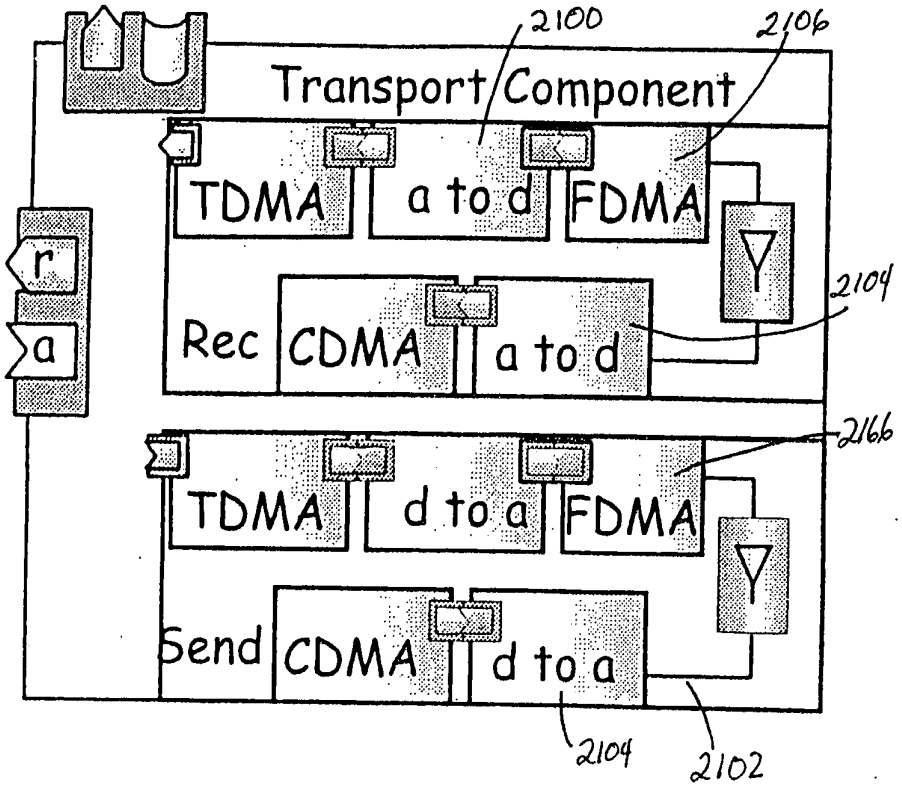


Figure 21A

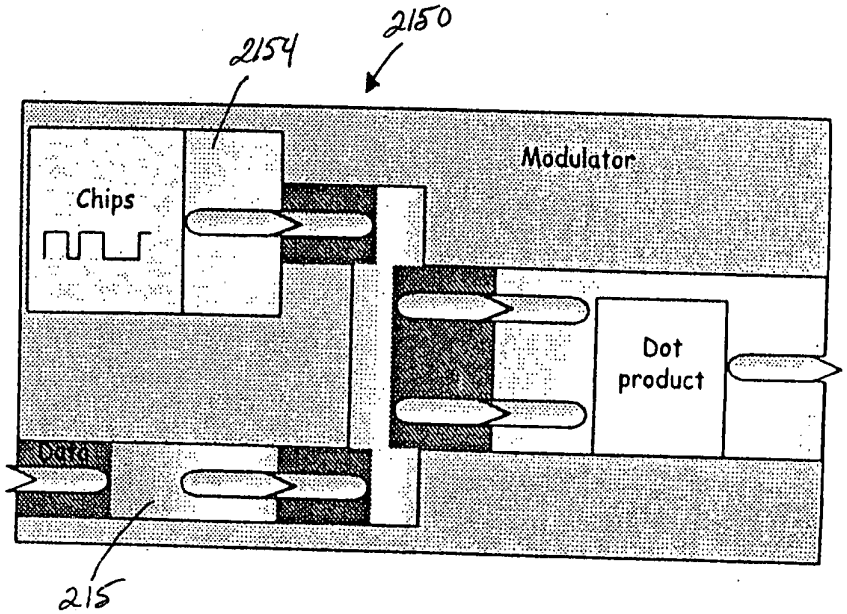


Figure 21B

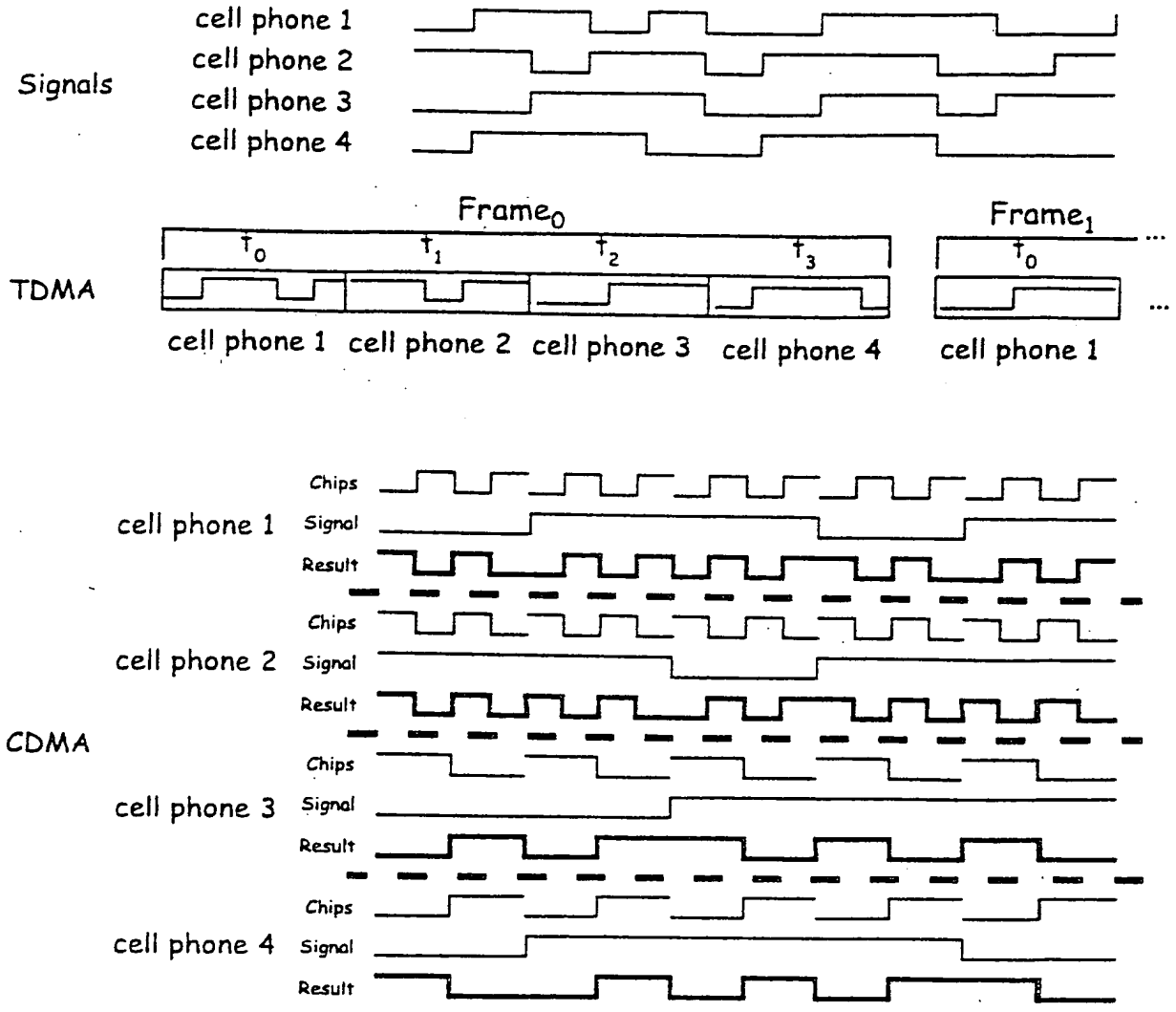

Signals
cell phone 1
cell phone 2
cell phone 3
cell phone 4
TDMA
Frame0
Frame1
T0
T1
T2
T3
T0
cell phone 1
cell phone 2
cell phone 3
cell phone 4
cell phone 1
CDMA
cell phone 1
cell phone 2
cell phone 3
cell phone 4
Chips
Signal
Result

Figure 22

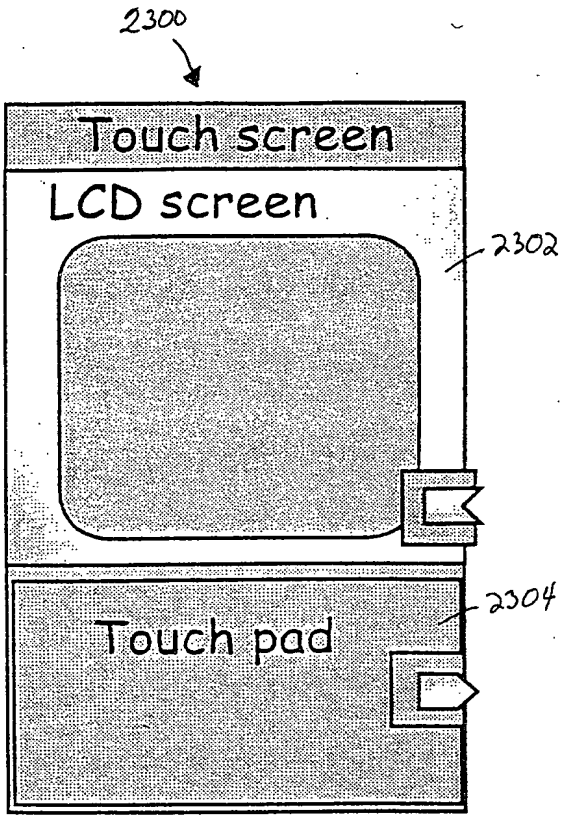


Figure 23A

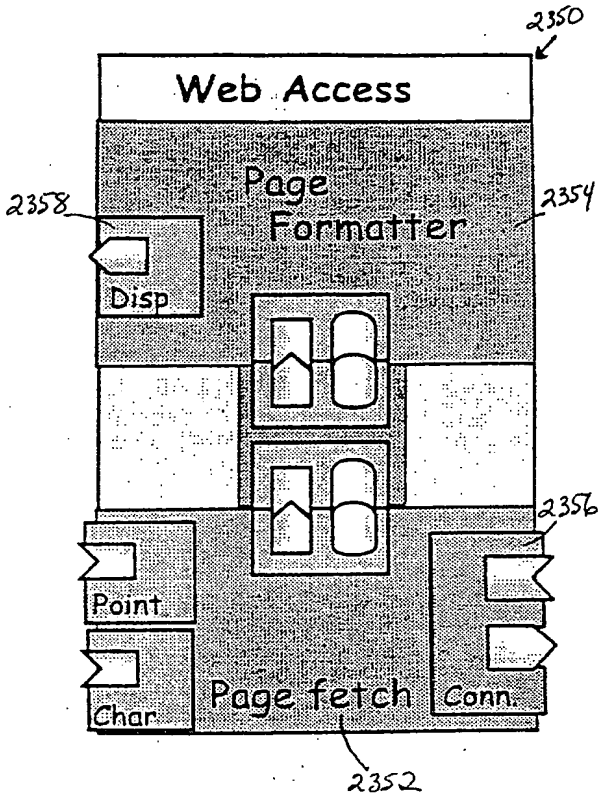


Figure 23B

TOGT90 "SSHSAAEO

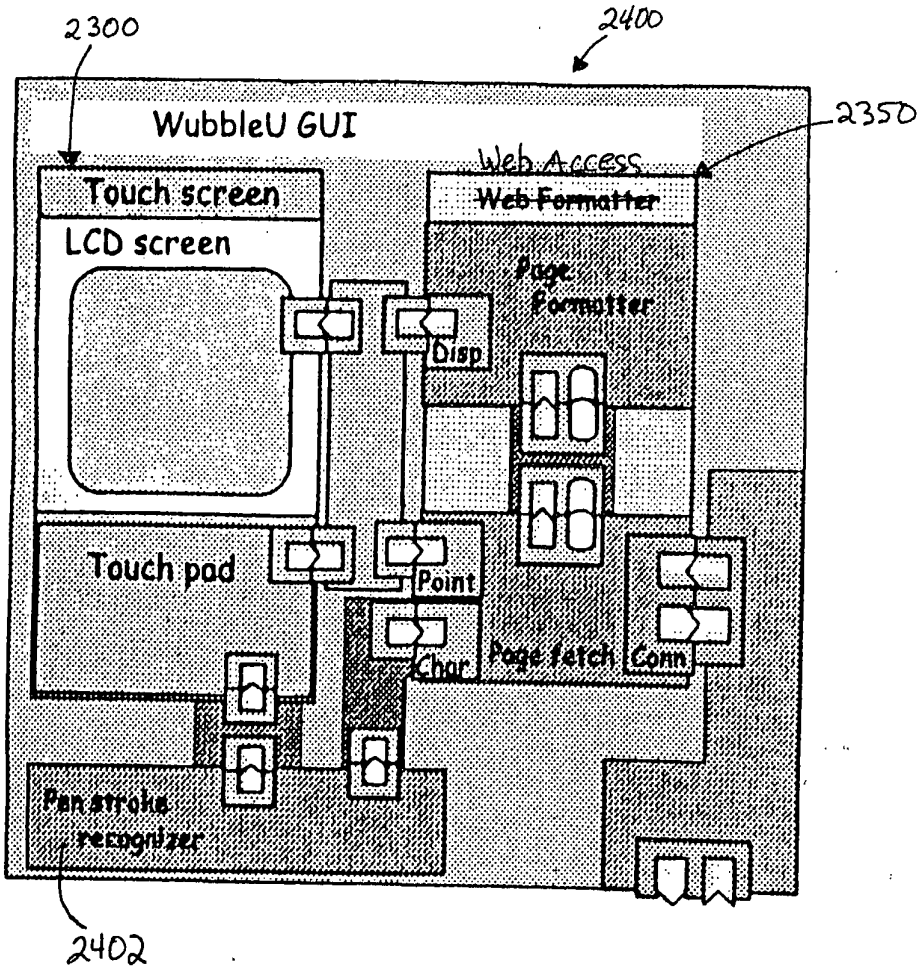


Figure 24A

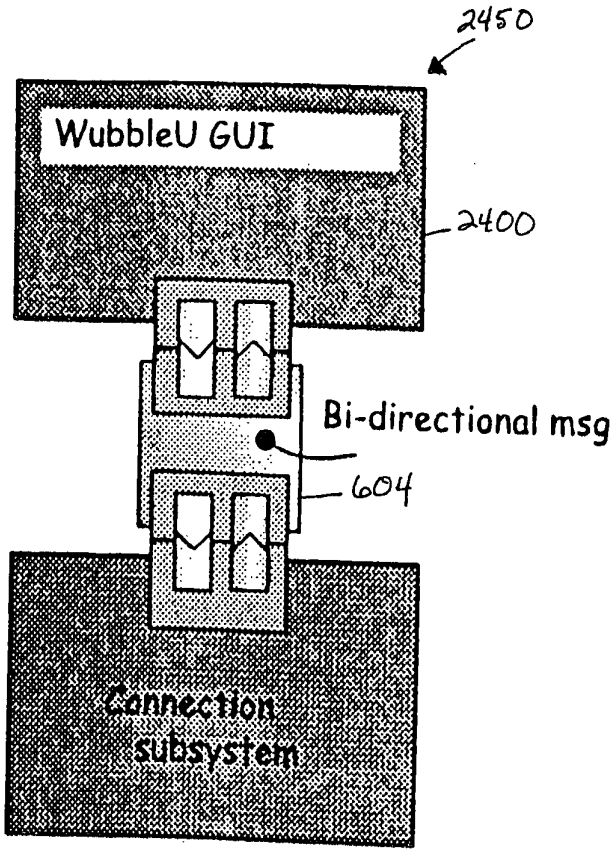


Figure 24B

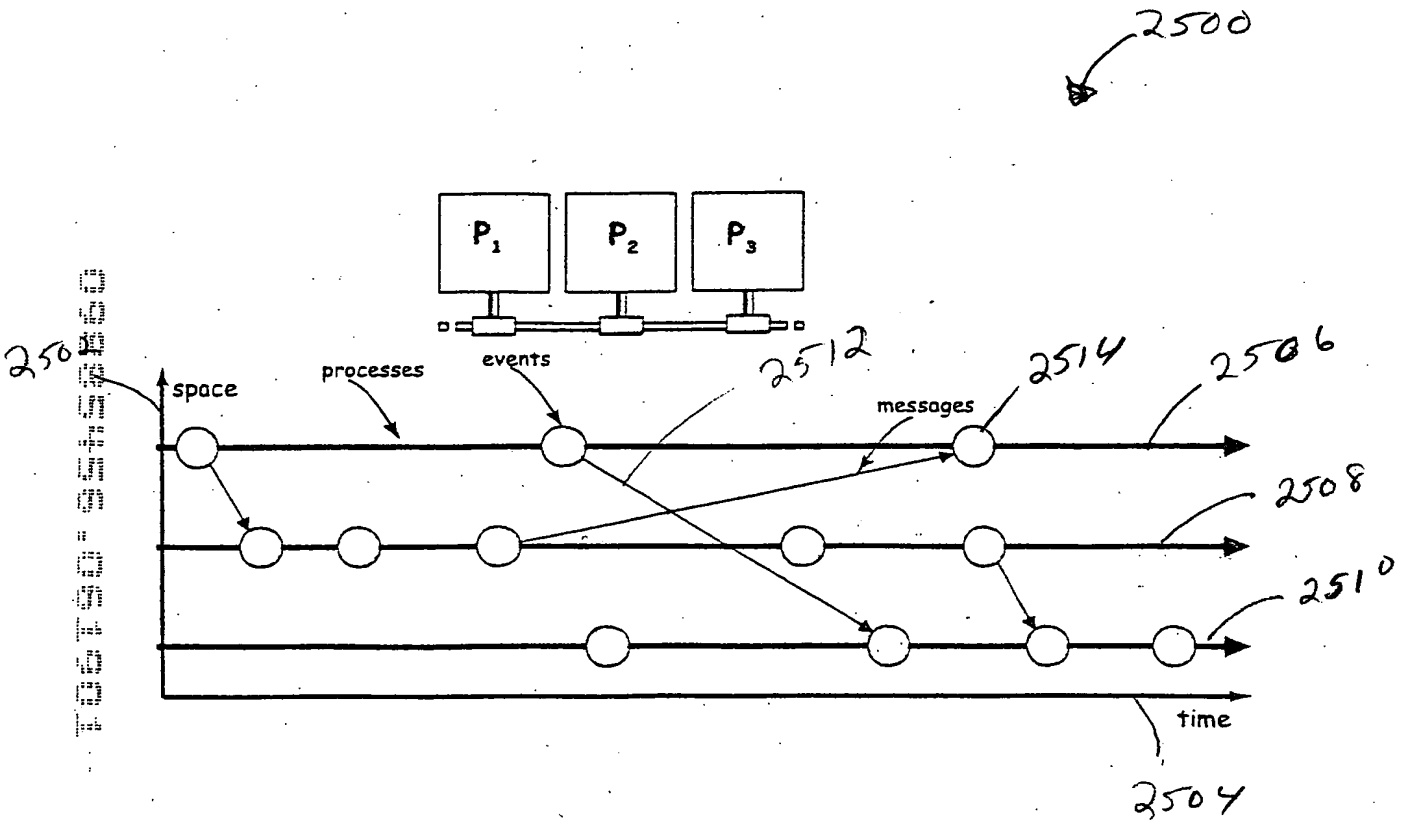

2500
P1
P2
P3
2502
space
processes
events
2512
2514
2506
messages
2508
2510
time
2504

Figure 25

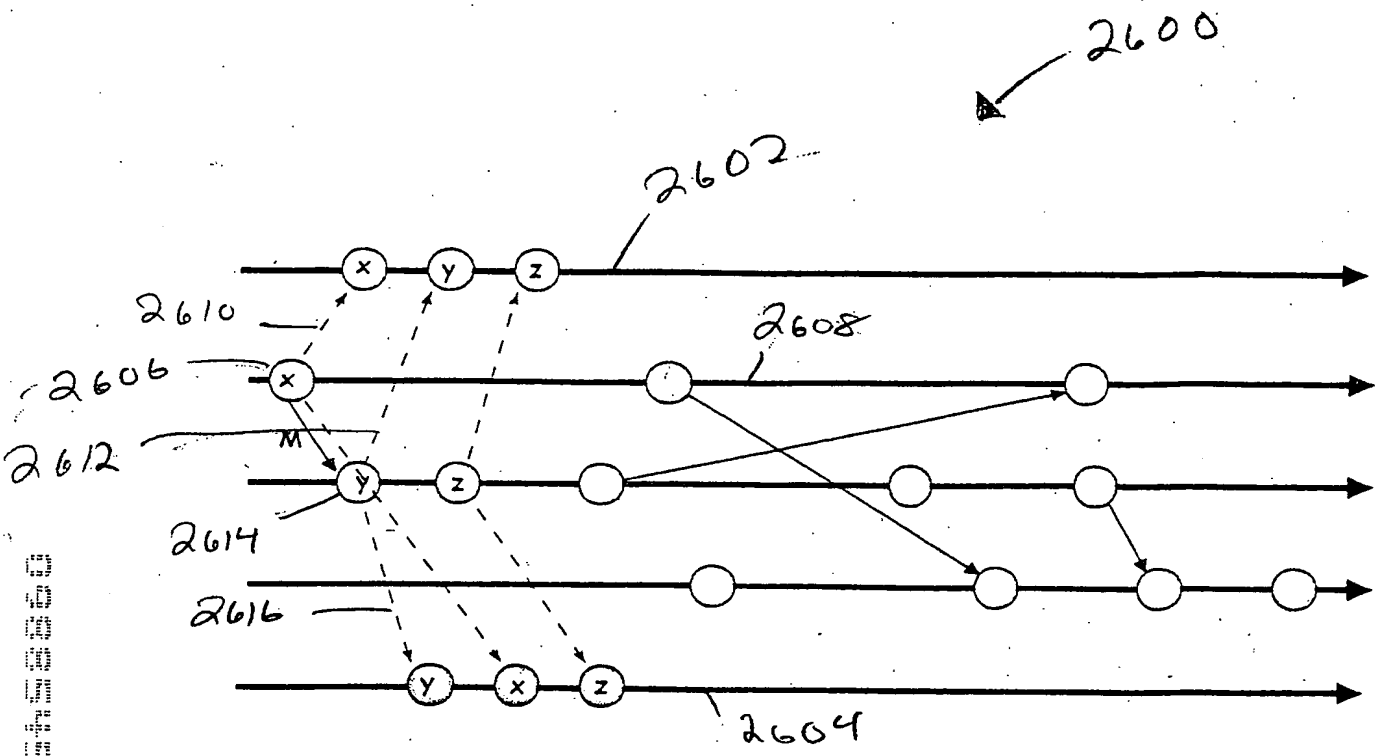


Figure 26

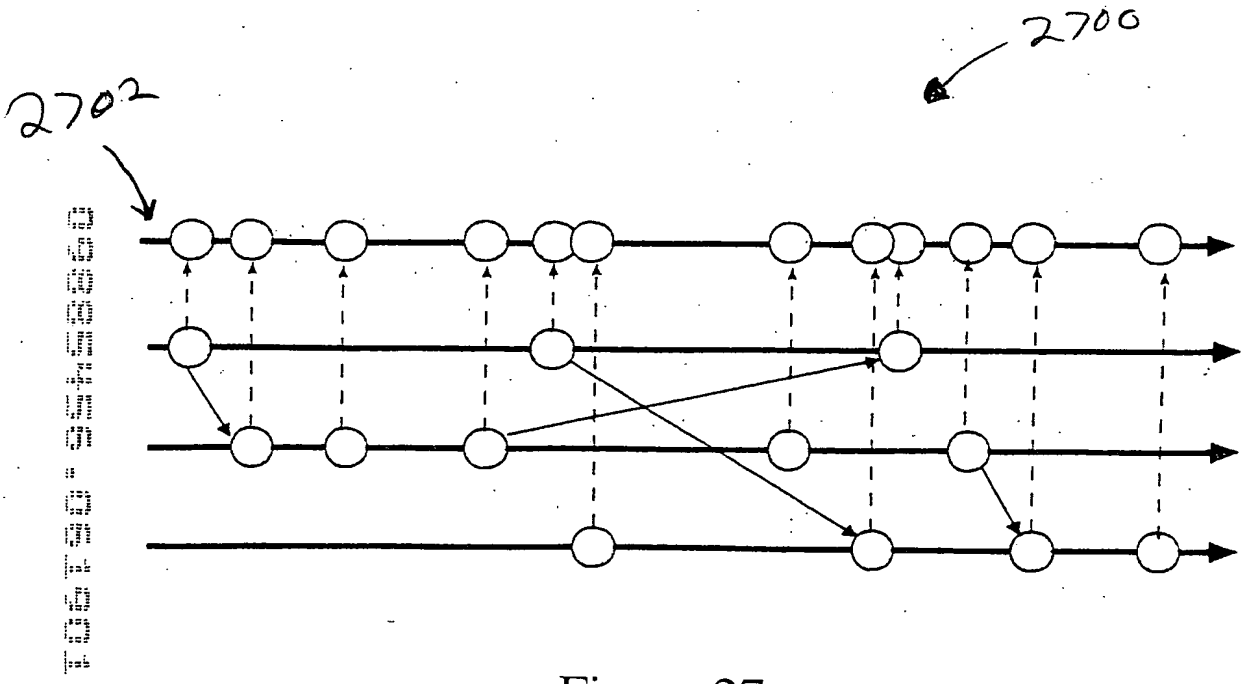


Figure 27

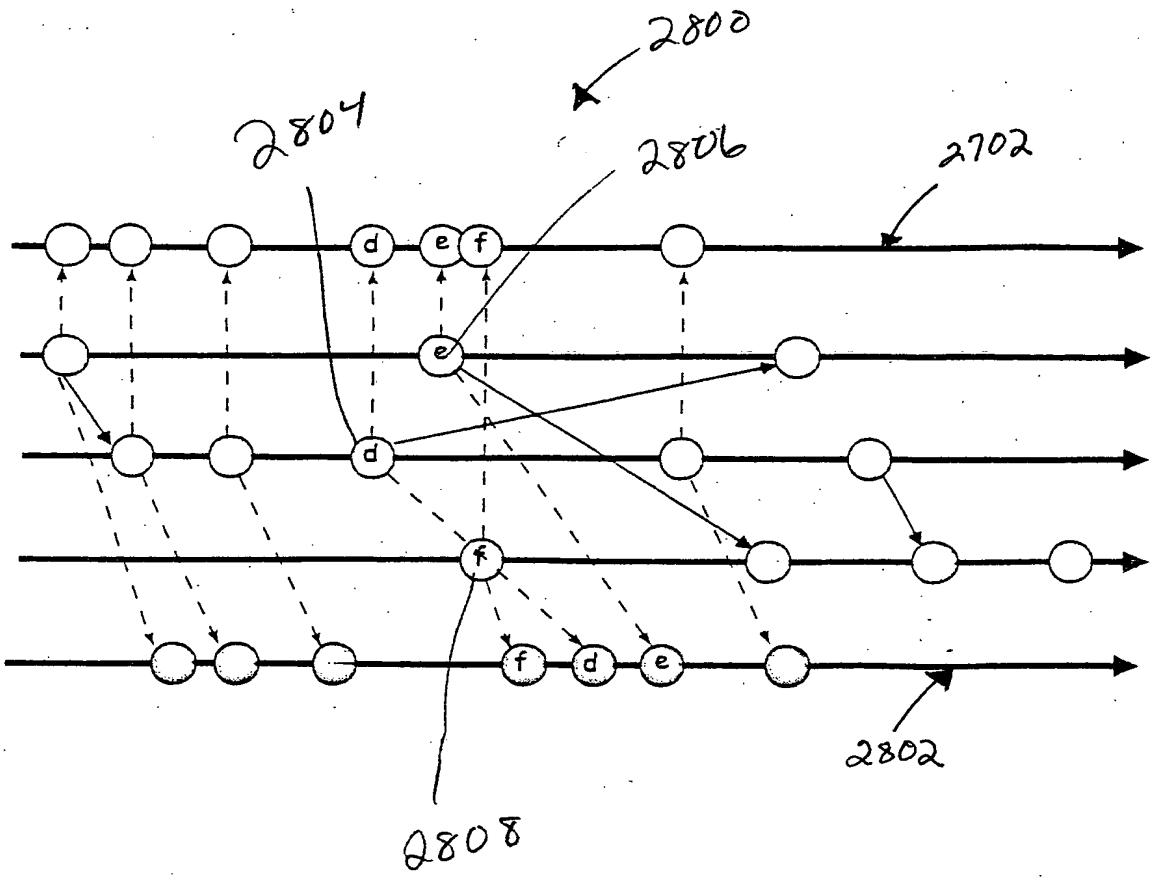


Figure 28

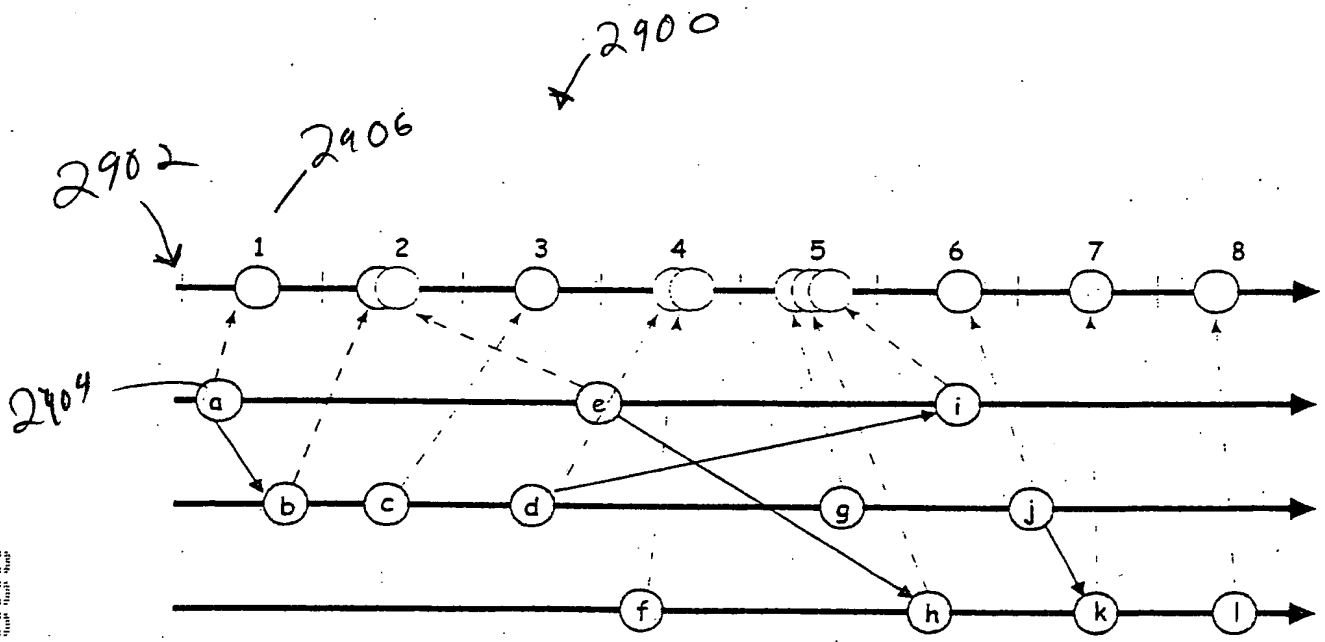


Figure 29

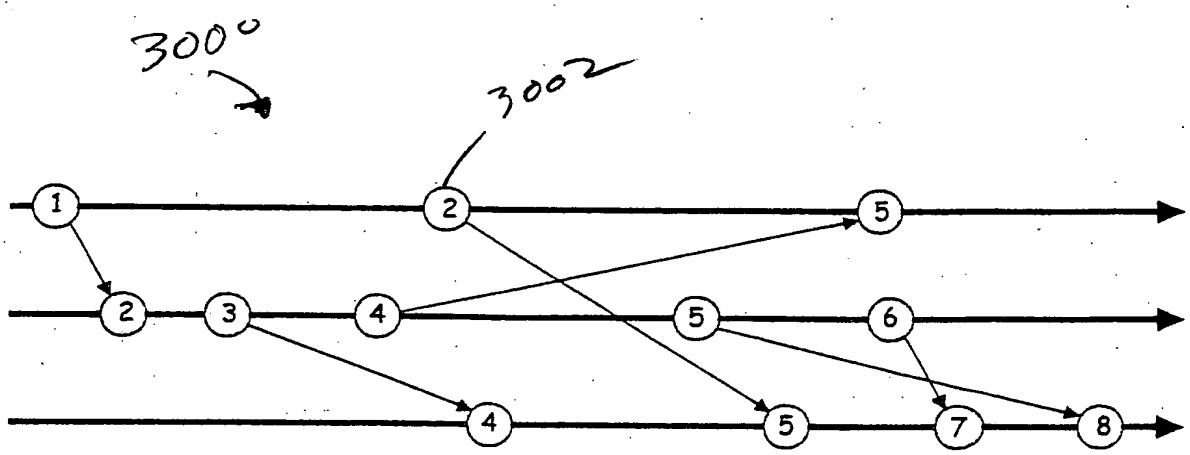


Figure 30

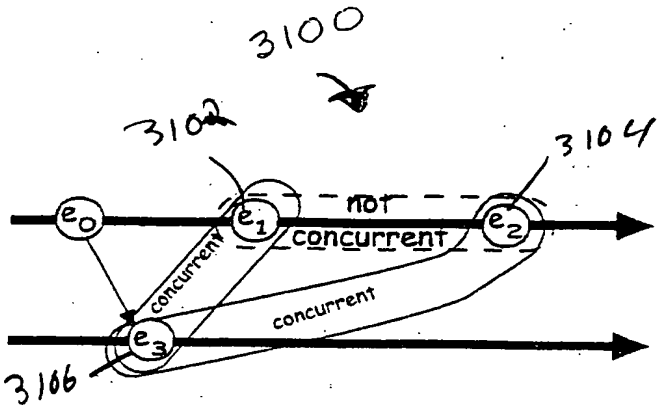

3100
3102
3104
3106
e_0
e_1
e_2
e_3
not
concurrent
concurrent
concurrent

Figure 31

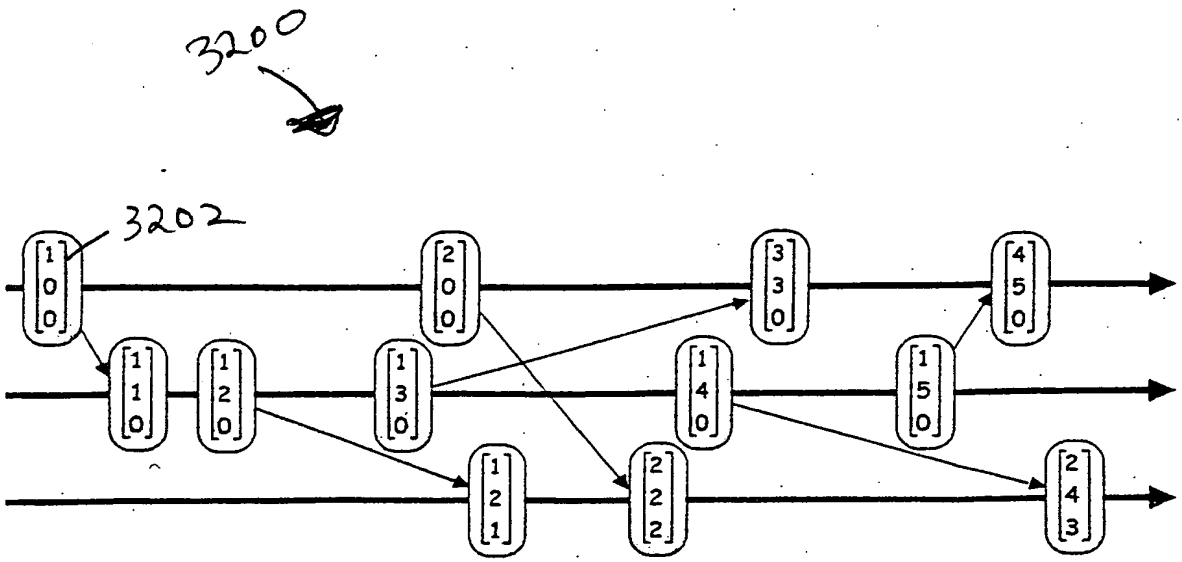


Figure 32

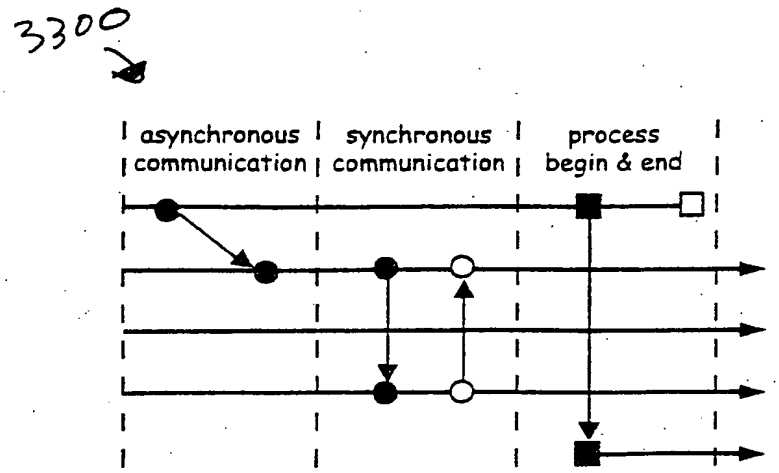

3300
asynchronous communication
synchronous communication
process begin & end

Figure 33

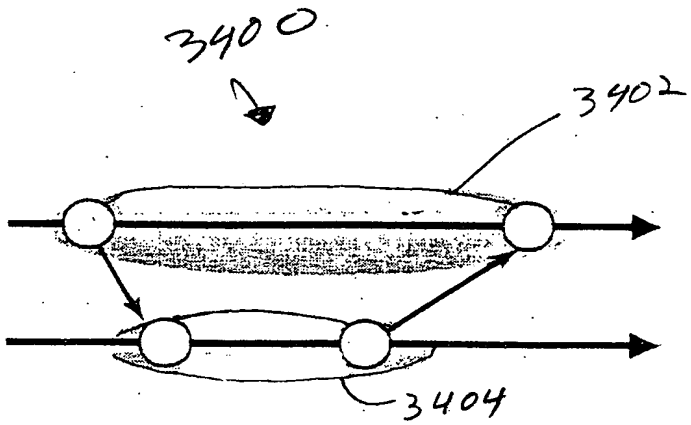


Figure 34

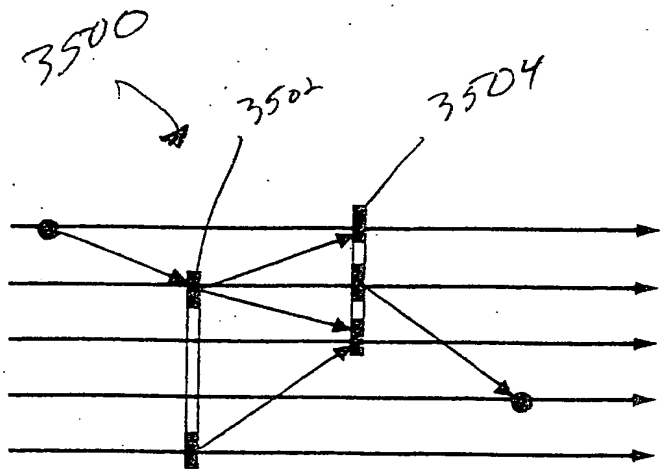


Figure 35

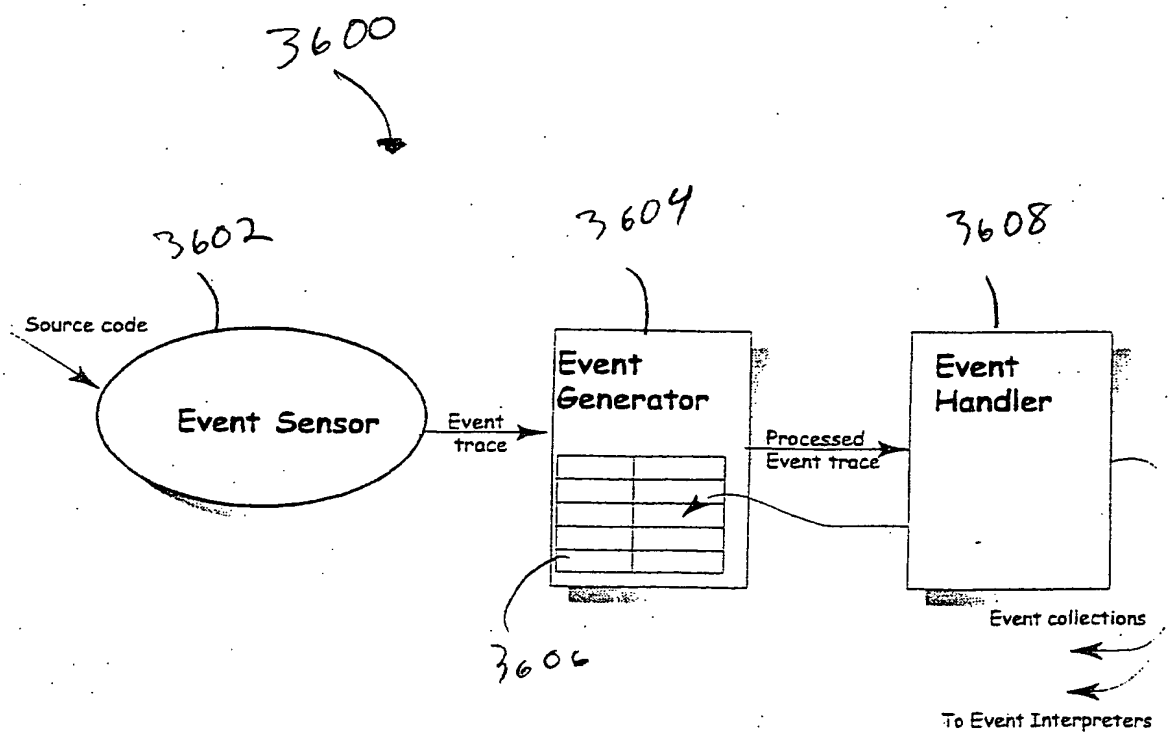

3600
3602
3604
3608
Source code
Event Sensor
Event trace
Event Generator
Processed Event trace
Event Handler
3606
Event collections
To Event Interpreters

Figure 36

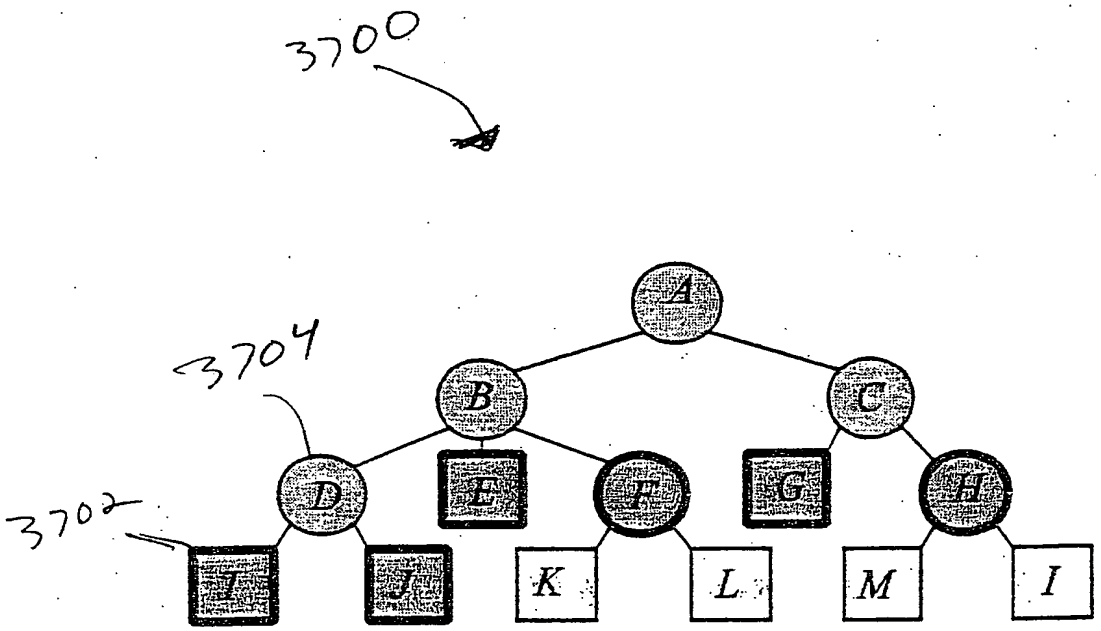
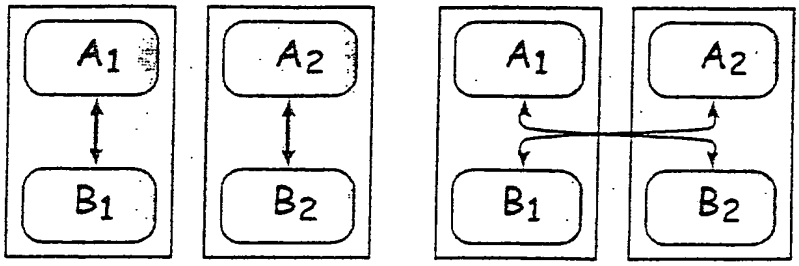
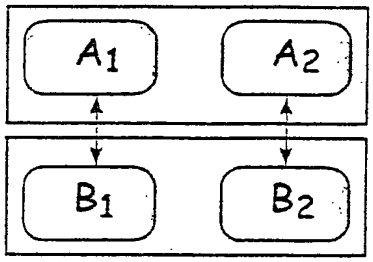


Figure 37



(a) Cohesion(P) = 1.0
Coupling(P) = 0.5

(b) Cohesion(P) = 0.0
Coupling(P) = 1.0



(c) Cohesion(P) = 1.0
Coupling(P) = 0.5

Figure 38

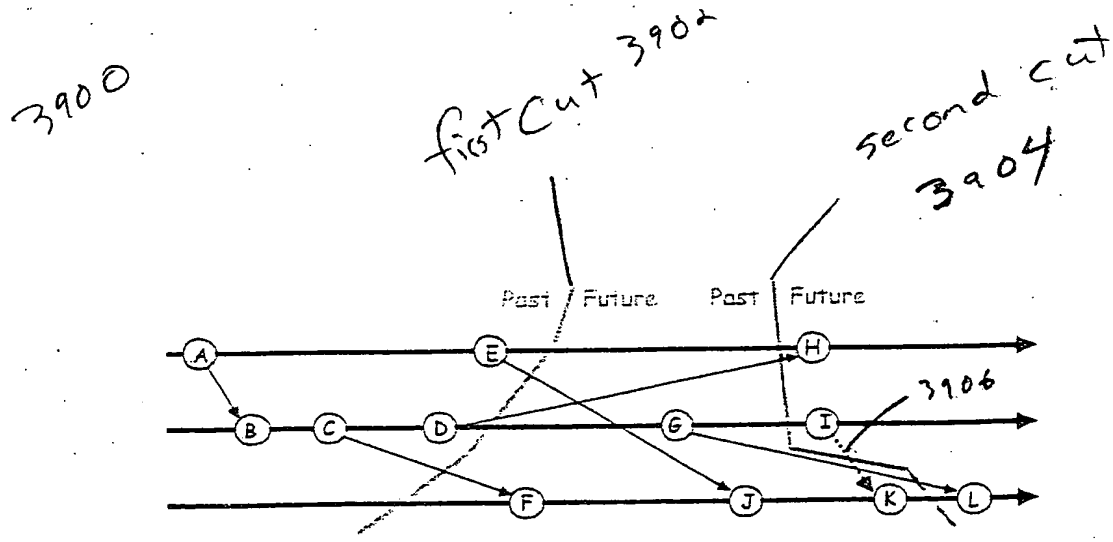

3900
first Cut 3902
second cut
3904
Past
Future
Past
Future
A
B
C
D
E
F
G
H
I
J
K
L
3906

Figure 39

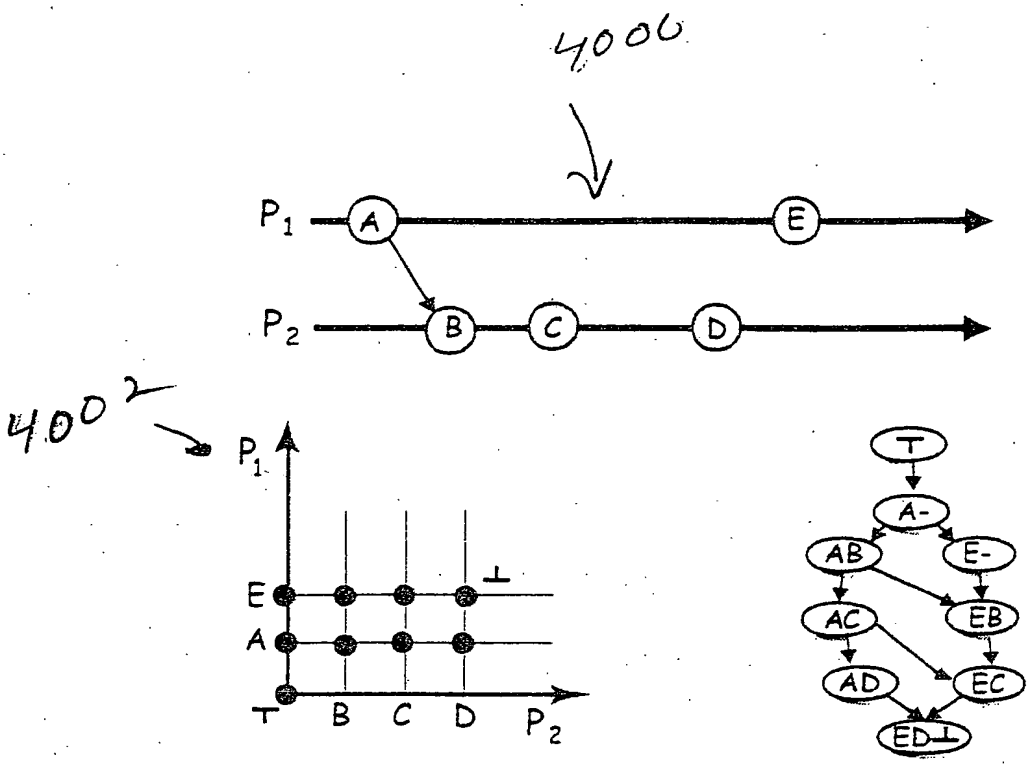


Figure 40

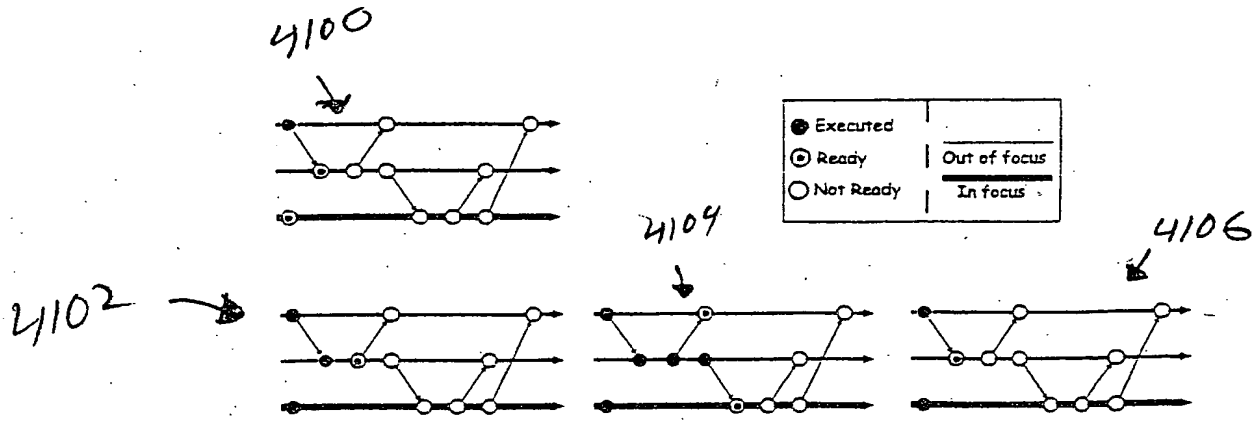

4100
4102
4104
4106
Executed
Ready
Not Ready
Out of focus
In focus

Figure 41

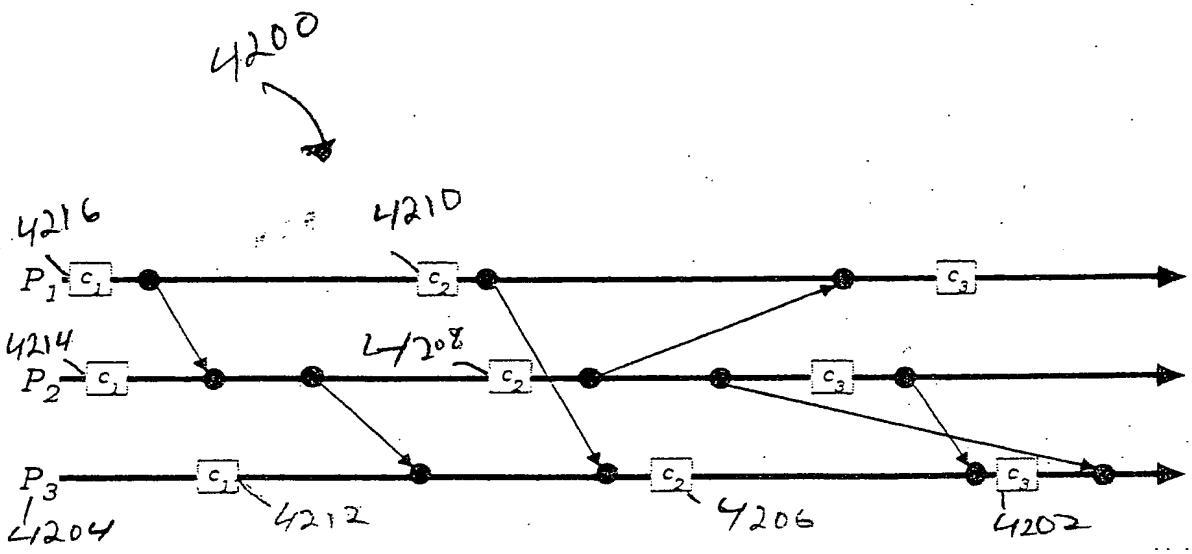

4200
4216
4210
P_1
c_1
c_2
c_3
4214
4208
P_2
c_1
c_2
c_3
P_3
c_1
c_2
c_3
4204
4212
4206
4202

Figure 42

T06T90'9SHSA860

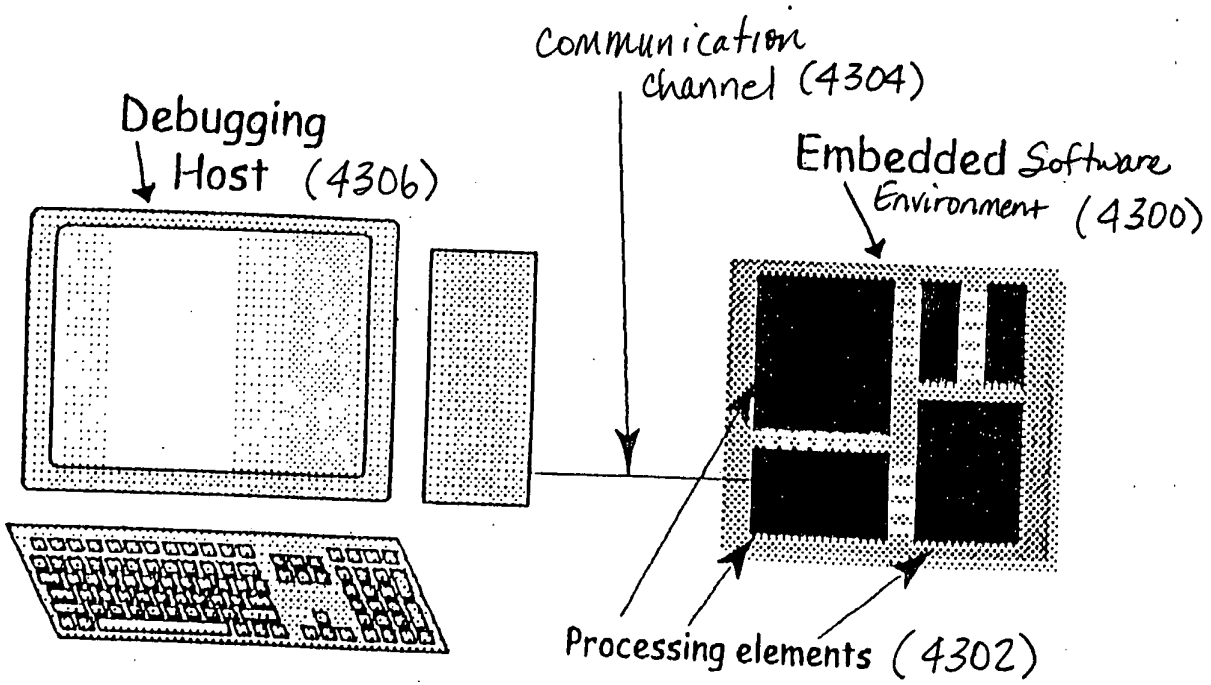


FIG. 43

T06T90'99h58260

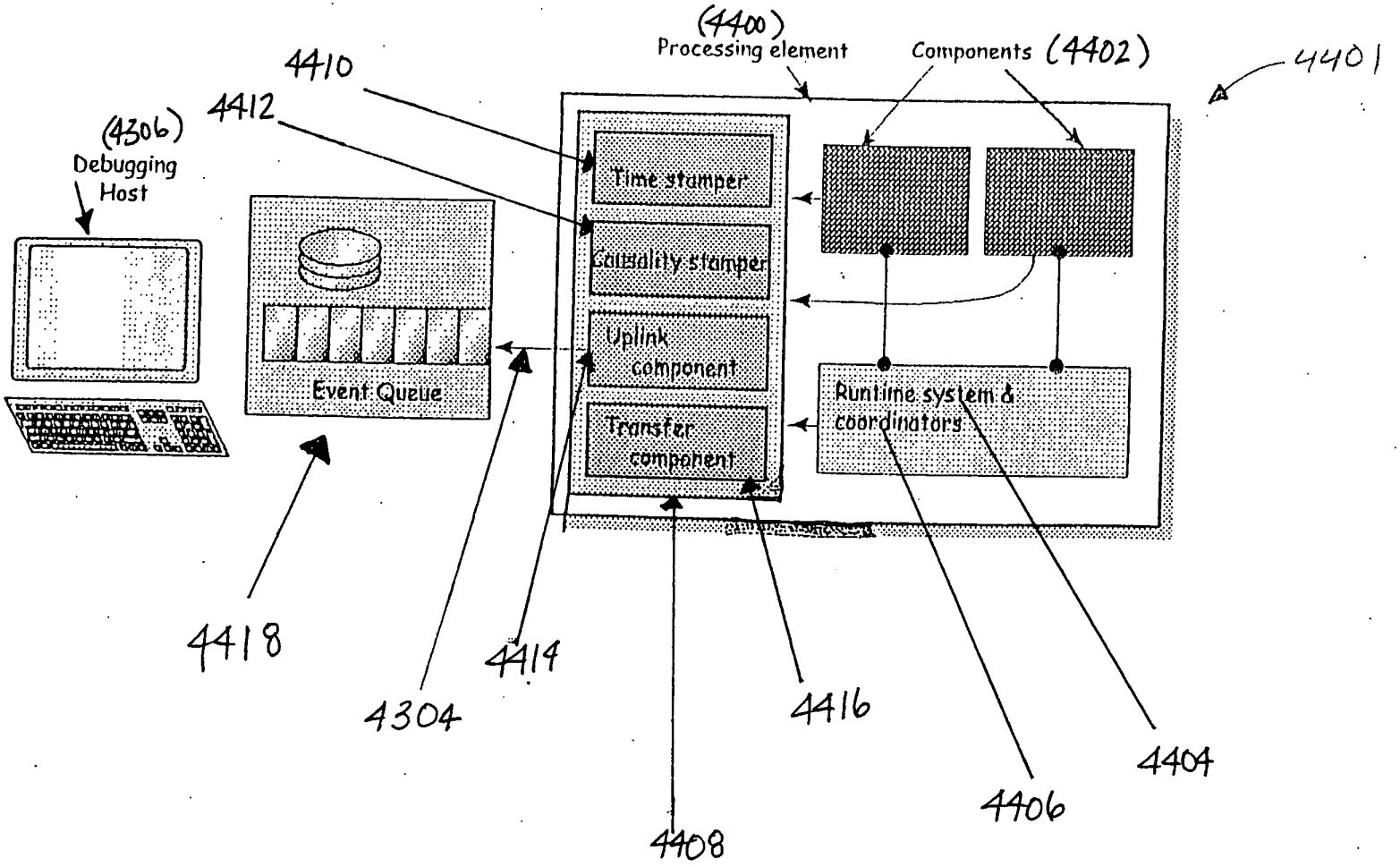


FIG. 44

T06T90"99hs8860

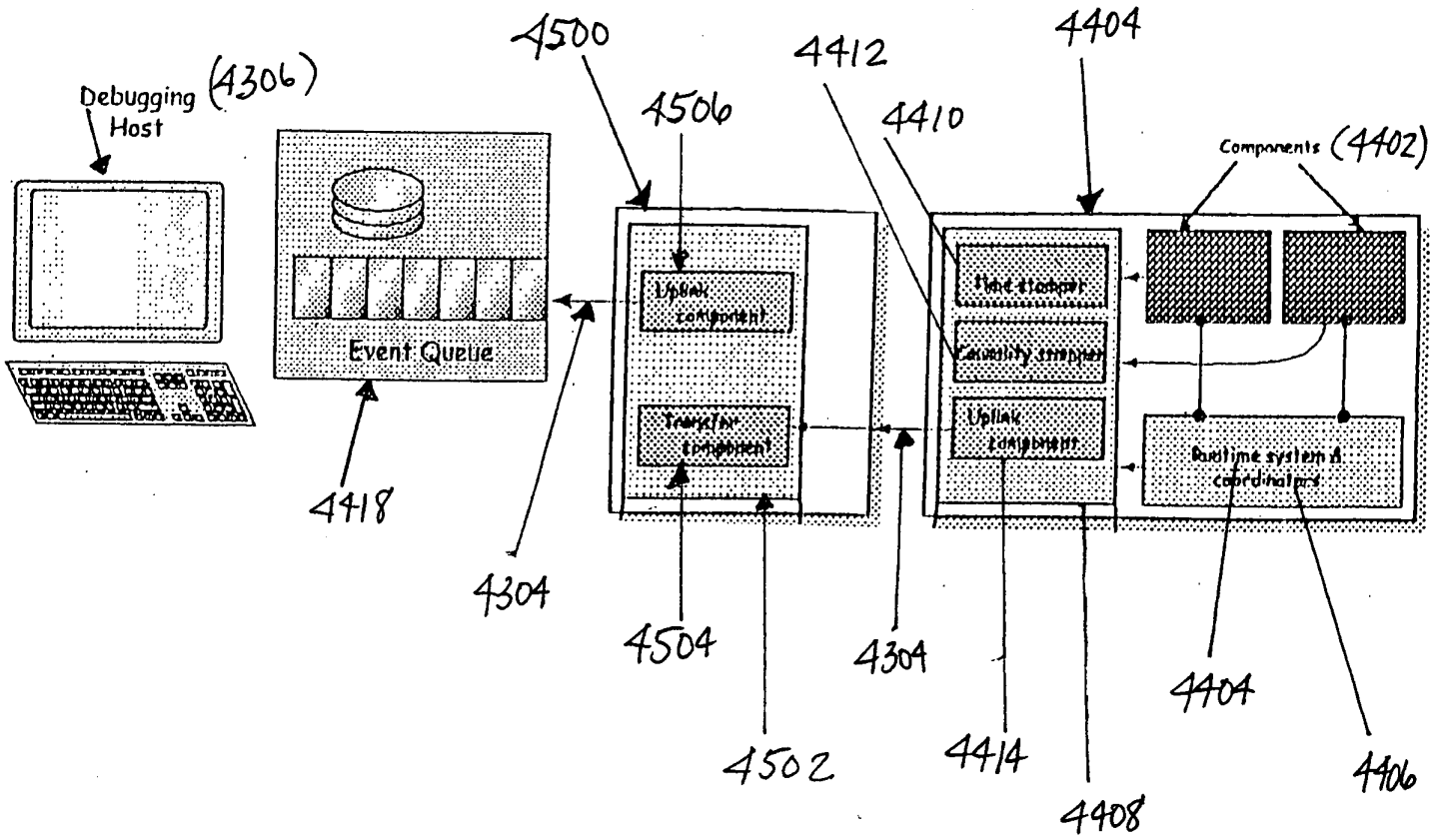


FIG. 45

T06T90 9SH9886D

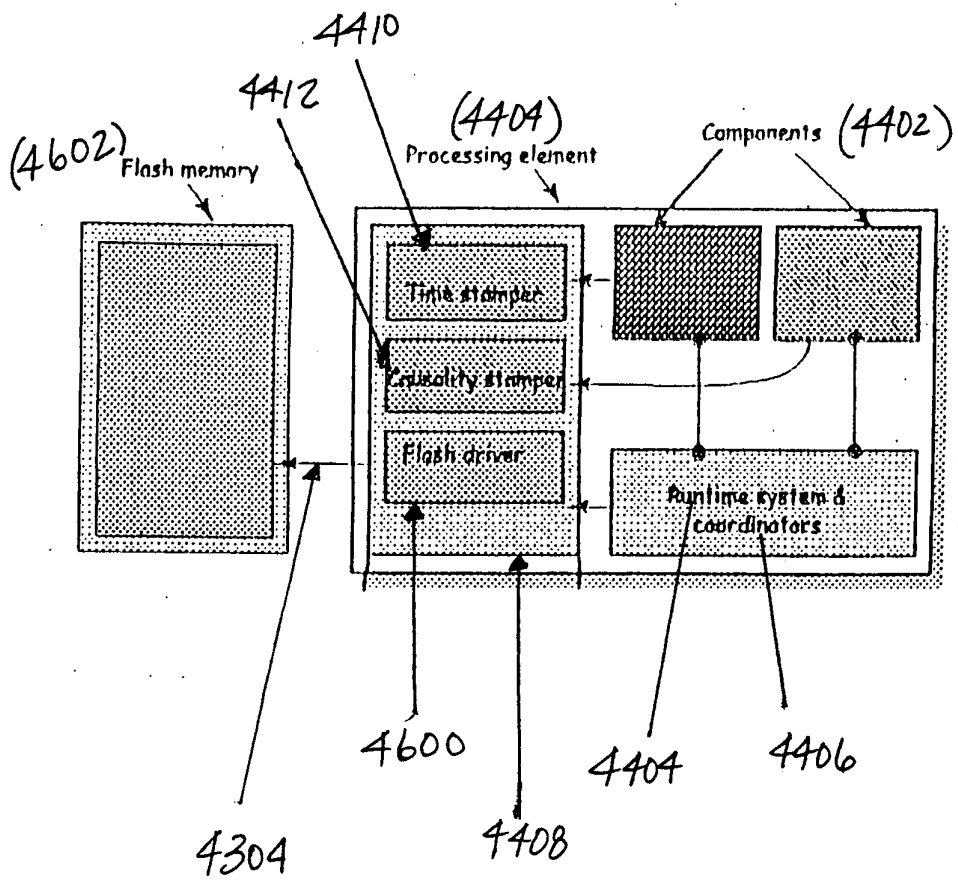


FIG. 46

Docket No. 95-SB-060

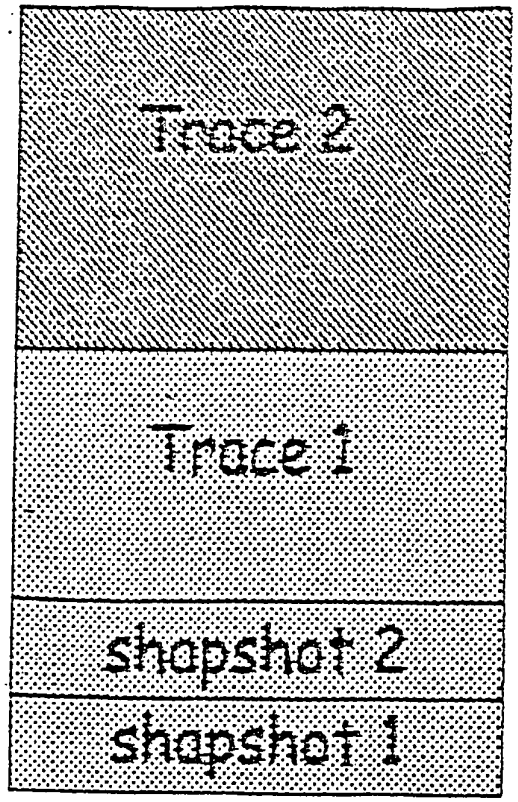
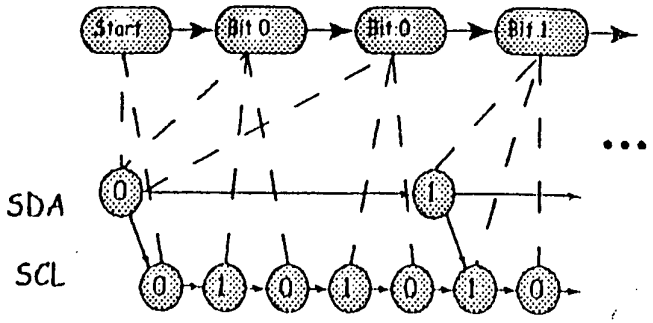
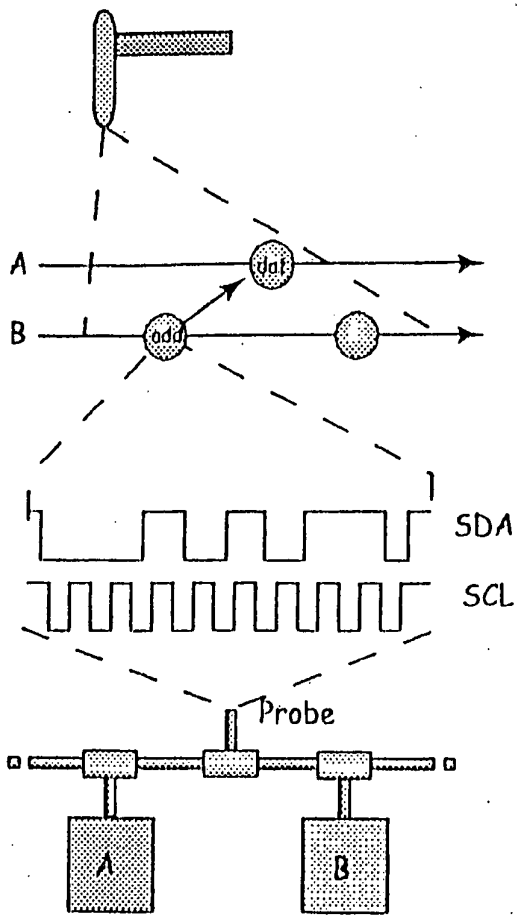


FIG. 47

Total 90 Sheets 88860



Primitive recognition of first two bits



Multiple representations

FIG. 48